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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

15 CV 1350

NEIL TAYLOR, STEVE LEAVEN and JOHN BURNSIDE, on behalf of themselves and all others similarly situated, Plaintiffs, v. BANK OF AMERICA CORPORATION, BANK OF AMERICA, N.A., BARCLAYS BANK PLC, BARCLAYS CAPITAL INC., BNP PARIBAS GROUP, BNP PARIBAS NORTH AMERICA INC., CITIGROUP, INC., CITIBANK N.A., CREDIT SUISSE GROUP AG, CREDIT SUISSE AG, CREDIT SUISSE SECURITIES (USA) LLC, DEUTSCHE BANK AG, THE GOLDMAN SACHS GROUP, INC., GOLDMAN, SACHS & CO., HSBC HOLDINGS PLC, HSBC BANK PLC, HSBC NORTH AMERICA HOLDINGS INC., HSBC BANK USA, N.A., J.P. MORGAN CHASE & CO., J.P. MORGAN CHASE BANK, N.A., MORGAN STANLEY, THE ROYAL BANK OF SCOTLAND GROUP PLC, THE ROYAL BANK OF SCOTLAND PLC, RBS SECUTITIES, INC., UBS AG, UBS SECURITIES LLC, and JOHN DOES 1-50, Defendants.	Case No.: ____________ **CLASS ACTION COMPLAINT** **JURY TRIAL DEMANDED**

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I. BACKGROUND

1. Plaintiffs, by and through their undersigned counsel, seek recovery on behalf of themselves and a proposed class of investors that transacted in exchange-traded foreign exchange ("FX") futures contracts and/or options on FX futures contracts (described herein, collectively, "FX Futures") on the CME Group exchanges[1] (the "CME") and/or other U.S. exchanges (including, for example, ICE Futures U.S.) (collectively referred to herein as "Relevant Exchanges") during the period beginning at least by January 1, 2008 and continuing to the present (the "Class Period") at artificial prices as the result of Defendants' (defined herein) longstanding manipulation of the FX market, as alleged further below.

2. Plaintiffs' allegations are based upon personal knowledge as to their own acts and upon information and belief as to all other matters alleged herein, including the investigation of counsel from publicly-available sources of information, including, *inter alia*, information regarding currency prices, the global foreign exchange markets, suspensions and terminations of FX traders by certain Defendants, investigations and resulting settlements by the Commodity Futures Trading Commission ("CFTC"), the United Kingdom Financial Conduct Authority ("FCA"), the U.S. Department of the Treasury Office of the Comptroller of the Currency ("OCC"), the Swiss Financial Market Supervisory Authority ("FINMA"), other regulatory investigations relating to manipulation and restraint of trade in FX markets, Plaintiffs' expert consultant's econometrics analysis (described herein), press reports and regulatory filings.

3. The prices of FX Futures run in parity, or lock-step, with spot market (also known as cash market) currency prices (the FX spot market is described at Section IV.C. *infra*). Changes in spot market prices are immediately and correspondingly reflected in FX Futures

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[1] The CME Group includes the Chicago Mercantile Exchange, the Chicago Board of Trade, the New York Mercantile Exchange and the Commodity Exchange.

prices. This pricing parity between spot and futures currency prices is supported by peer reviewed academic study and analysis, and is well-understood by sophisticated FX market participants like the Defendants, with extensive trading operations, experience and expertise in both the FX spot and FX Futures markets.

4. Defendants, as dominant and sophisticated FX market participants, understood and knew to a substantial certainty that their active and intentional manipulation of FX spot prices and FX benchmark rates (described below at Section IV.D.) would and did directly cause artificial and manipulated FX Futures prices during the Class Period. Defendants knowingly engaged in illegal manipulation of FX cash market prices, while fully comprehending, and therefore specifically intending, the certain consequences of that active price manipulation in the FX Futures market. Such consequences were thus fully and certainly foreseeable, as was corresponding harm and injury to Plaintiff FX futures market participants and those similarly situated, and Defendants thus knowingly, intentionally, and/or recklessly caused such harm and injury. Plaintiffs bring this action on behalf of themselves and the proposed Class (defined at ¶ 309 *infra*) pursuant to the Commodity Exchange Act ("CEA"), as amended, 7 U.S.C. §§ 1, *et seq*. and the Sherman Act, 15 U.S.C. § 1.

5. As detailed at Section IV.E. *infra*, in November 2014, several regulators announced settlements of ongoing FX market manipulation investigations with certain of the Defendants:

a. On November 12, 2014, the CFTC announced five Orders filing and settling charges against each of Defendants Citibank N.A. ("Citibank"), HSBC Bank Plc ("HSBC"), J.P. Morgan Chase Bank N.A. ("J.P. Morgan"), The Royal Bank of Scotland plc ("RBS") and UBS AG ("UBS") in connection with its

investigation of manipulation of, *inter alia*, FX benchmark rates. The CFTC imposed fines totaling $1.4 billion against these banks.

b. On November 11, 2014, the UK FCA announced settlements with these same five banks, imposing a total fine of $1.7 billion for, *inter alia*, their failure to control their FX trading operations. The FCA determined that these banks, along with Barclays Bank Plc ("Barclays"),[2] were the institutions where it "found the worst misconduct," involving FX traders being allowed to put their banks' interests ahead of clients, other market participants and the entire U.K. financial system. According to *Bloomberg*, "When the settlements were announced, the FCA said it ordered about 30 other banks, including Deutsche Bank, to overhaul their practices."

c. In Consent Orders for a Civil Money Penalty, also announced on November 11, 2014, the OCC fined Bank of America, N.A. ("BofA"), J.P. Morgan and Citibank an additional $950 million total for, *inter alia*, permitting an environment in which "unscrupulous traders discussed manipulating foreign exchange markets."

d. On November 12, 2014, FINMA concluded its enforcement action against UBS, finding, *inter alia*, that UBS severely violated the proper business conduct requirements for FX trading and imposing a CHF 134 million ($139 million) fine. FINMA also investigated three Swiss banks in addition to UBS regarding

[2] According to *Bloomberg*, Barclays dropped out of the negotiations on the eve of the settlement announcements after Benjamin Lawsky, the Superintendent of the New York Department of Financial Services, balked, viewing the penalties as too lenient.

misconduct in FX trading, and imposed corrective supervisory measures to remedy the shortcomings that emerged in the investigation.

6. One of the primary FX benchmark rates to which Defendants directed their manipulation was the WM/Reuters Rates. The CFTC noted that the integrity of the WM/Reuters Rates "is critical to the integrity of the markets in the U.S. and around the world." In the CFTC's announcement of the settlement Orders, its Director of Enforcement stated:

> The setting of a benchmark rate is not simply another opportunity for banks to earn a profit. Countless individuals and companies around the world rely on these rates to settle financial contracts, and this reliance is premised on faith in the fundamental integrity of these benchmarks. The market only works if people have confidence that the process of setting these benchmarks is fair, not corrupted by manipulation by some of the biggest banks in the world.

7. Government and regulatory authorities throughout the world, including the U.S. Department of Justice ("DOJ"), continue to investigate Defendants' unlawful conduct in the FX markets. In addition to entering into settlements, a number of Defendants are seeking immunity or are otherwise cooperating with authorities in these investigations, including by producing documents, including chat room transcripts and other incriminating communications. As a direct result of, *inter alia*, these global investigations, Defendants have terminated or suspended numerous personnel, including those with supervisory authority over Defendants' FX trading desks and operations (*see* Section IV.D.4. *infra*).

8. Plaintiffs' expert consultant undertook a review and econometric analysis of FX Futures trading data (*see* generally, Section IV.B. *infra*). Based on that analysis, the expert consultant found strong evidence indicating that FX Futures price manipulation occurred throughout the Class Period, particularly in connection with the setting of critical FX benchmark fixes, such as the WM/Reuters London Fix (discussed *infra*), the most important FX benchmark

rate. Thus, Plaintiffs and the members of the proposed Class were injured in the same manner, and as a result of the same misconduct, as were traders in the FX spot market.

9. Except as alleged in this Complaint, Plaintiffs and other members of the proposed Class do not have access to the underlying facts relating to Defendants' improper activities, as that information is known only to Defendants and lies exclusively within the possession and control of Defendants, their co-conspirators and other insiders. This fact prevents Plaintiffs from further detailing Defendants' misconduct at this time. Ongoing global governmental investigations by regulators in connection with potential manipulation of the FX markets (as detailed at Section IV.F. *infra*), as well as Plaintiffs' counsel's own investigation, may yield further information from Defendants and/or co-conspirators that could bear significantly on the Plaintiffs' claims. In addition, Plaintiffs believe that further evidentiary support for the allegations herein will emerge after a reasonable opportunity to conduct discovery.

II. JURISDICTION, VENUE, AND COMMERCE

10. This action arises under Section 22 of the CEA, 7 U.S.C. § 25; Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1; and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26, respectively.

11. This Court has jurisdiction pursuant to Section 22 of the CEA, 7 U.S.C. § 25; Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26(a); and 28 U.S.C. §§ 1331 and 1337.

12. This Court has personal jurisdiction over the Defendants, as each Defendant transacts business, commerce and trading in the U.S. and in this District, including trading FX spot and related derivative contracts, including, on information and belief, during periods of price manipulation alleged herein. Each Defendant also has substantial contacts with the U.S.,

including in this District, and engaged in multiple acts in furtherance of their conspiracy in the U.S., including engaging in manipulative spot FX transactions and at times FX Futures transactions with traders and clients based in the U.S., including this District.

13. Venue is proper in the Southern District of New York, pursuant to, among other statutes, Section 22 of the CEA, 7 U.S.C. § 25(c), 15 U.S.C. § 22 and 28 U.S.C. § 1391(b), (c) and (d). Defendants each transacted business in, had agents in, and a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred in this District. Defendants were subject to the laws and regulations of the U.S. and its agencies, and their employees and agents entered into unlawful acts and agreements in furtherance of their market manipulation and restraint of trade in the U.S. and caused substantial effects in the U.S.

14. Defendants made use of the means and instrumentalities of transportation or communication in, or the instrumentalities of, interstate commerce, in connection with the unlawful acts and practices and courses of business alleged in this Complaint. Currency, FX and related futures and options contracts are commodities that trade in interstate commerce in the U.S. Defendants are all sophisticated FX dealers and market participants that knew that FX spot prices and benchmarks are disseminated in the U.S. and are directly and immediately incorporated into the trading and settlement prices of FX Futures created and traded on exchanges in the U.S.

III. PARTIES

A. Plaintiffs

1. Plaintiff Neil Taylor

15. Plaintiff Neil Taylor ("Taylor") was at all relevant times a resident of England, and he transacted in FX Futures during the Class Period, including purchases and sales of

Euro/U.S Dollar, Australian Dollar/U.S. Dollar and British Pounds/U.S. Dollar futures contracts on the CME, including around the time of the 4 p.m. London Fix and/or the 2:00 p.m. CT CME Daily Settlement Fix (described below), at artificial prices that were caused by Defendants' unlawful conduct, resulting in injury to his business or property by reason of Defendants' violations of law, as alleged herein.

2. Plaintiff Steve Leaven

16. Plaintiff Steve Leaven ("Leaven") was at all relevant times a resident of Chicago, Illinois and he transacted in FX Futures during the Class Period, including purchases and sales of British Pound/U.S. Dollar futures contracts on the CME, including around the time of the 4 p.m. London Fix and/or the 2:00 p.m. CT CME Daily Settlement Fix, at artificial prices that were caused by Defendants' unlawful conduct, resulting in injury to his business or property by reason of Defendants' violations of law, as alleged herein.

3. Plaintiff John Burnside

17. Plaintiff John Burnside ("Burnside") was at all relevant times a resident of Northbrook, Illinois, and he transacted in FX Futures during the Class Period, including purchases and sales of Canadian Dollar, Australian Dollar and Swiss Franc futures on the CME, including around the time of the 4 p.m. London Fix and/or the 2:00 p.m. CT CME Daily Settlement Fix, at artificial prices that were caused by Defendants' unlawful conduct, resulting in injury to his business or property by reason of Defendants' violations of law, as alleged herein.

B. Defendants

1. The Bank of America Defendants

18. Defendant Bank of America Corporation is a Delaware corporation headquartered at 100 North Tryon Street, Charlotte, North Carolina 28255. Bank of America Corporation is a

multinational banking and financial services corporation with its investment banking division located at the Bank of America Tower, One Bryant Park, 1111 Avenue of the Americas, New York, New York 10036.

19. Defendant Bank of America, N.A. (previously defined as BofA) is a federally-chartered national banking association headquartered at 101 South Tyron Street, Charlotte, North Carolina 28255, and is an indirect, wholly owned subsidiary of Bank of America Corporation. In the OCC's Consent Order with BofA, it noted that BofA engages in FX business, "including G10 and other currencies, sales and trading in spot, forwards, options and other derivatives." According to the OCC's Consent Order, BofA acts as a dealer in the spot FX market and provides liquidity in G10 currencies by acting as a principal market maker, and by trading with other dealers and customers to seek profits for BofA on the bid-ask spread. The OCC specifically identified deficiencies and unsafe practices in BofA's FX wholesale business in which BofA acts as a principal.

20. Defendants Bank of America Corporation and BofA are sometimes referenced together in this Complaint as "Bank of America."

2. The Barclays Defendants

21. Defendant Barclays Bank Plc (previously defined as Barclays) is registered in the U.S. as a bank holding company and is a public limited company headquartered at 1 Churchill Place, London E14 5H, England. Barclays is domiciled in England and Wales, with substantial operations in the U.S. Barclays has three separate branches located in the U.S., including two branches in New York and one in Miami, Florida. In addition, Barclays is registered as a financial holding company with the Federal Reserve Bank of New York and is subject to a comprehensive regulatory structure in the U.S. Barclays' New York branch is licensed by the

New York State Department of Financial Services, with a registered address at 745 Seventh Avenue, New York, New York 10019.

22. Barclays also has Representative Offices located in Wilmington, Delaware, New York, New York and Washington D.C. Through these Representative Offices, Barclays engages in investor relations and interacts with and provides information about Barclays to its clients located in the U.S. Barclays also maintains a foreign representative office at One MetLife Plaza, 27-01 Queens Plaza North, Long Island City, New York 11101.

23. Barclays sponsors American Depositary Receipts ("ADRs") within the U.S., which are traded on the New York Stock Exchange ("NYSE"). Barclays indirectly owns and leases real property in the U.S. through an affiliated limited liability company domiciled in the U.S. and incorporated in Delaware known as Long Island Holding A LLC ("LIHA"). Barclays' New York branch and U.S. investment banking company, Barclays Capital, Inc. ("BarCap"), as well as other U.S. arms and subsidiaries of Barclays, operate from LIHA properties.

24. Barclays leases real property for its branch offices in New York and in Miami. In 2000, Barclays entered into a long-term lease for 260,000 feet and several floors in a well-known address – 200 Park Avenue – in the MetLife Building to house and expand its North American headquarters and investment banking operations New York. Barclays obtained leases of the lower 100,000-square-foot base floors in the MetLife Building that were necessary for its high-tech trading operations. Barclays also leases office space at 1301 Sixth Avenue, in New York, New York and maintains a large percentage of its operations at 745 Seventh Avenue in Manhattan, which Barclays acquired from Lehman Brothers Holding during its bankruptcy proceedings. In 2008, Barclays sought to enhance its position as an elite Wall Street investment bank by buying the bulk of Lehman Brothers' American operations.

25. Another marquee address eponymous with Barclays is the Barclays Center located in Brooklyn, which is a multi-purpose arena and the home court for the NBA's Brooklyn Nets. In 2007, Barclays purchased the naming rights to the Nets' Brooklyn home for hundreds of millions of dollars, further reinforcing its presence in New York.

26. Barclays also employs hundreds of traders and other employees in New York, with its New York branch reporting total assets of $36.3 billion. As a branch of Barclays, the New York branch "remits or receives any profit and loss" to Barclays on a monthly basis, according to its regulatory reports. Barclays operates a spot FX trading desk in New York, with voice operations connected to traders on Barclays' London spot FX trading desk. Barclays further discloses that it uses derivatives to hedge exchange rate exposures.

27. With over $2 trillion in global consolidated assets, Barclays is designated as a "covered company" under the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank"), which requires systemically important financial institutions with assets in excess of $50 billion to submit a Resolution Plan, providing for orderly resolution in the event of a material financial stress, to the U.S. Board of Governors of the Federal Reserve System (the "Fed"). All systemically important banks are required to submit an annual updated emergency Resolution Plan to their financial supervisory authority. In its Resolution Plan submitted to the Fed in July 2014, Barclays named its "New York Branch of Barclays Bank plc" and Defendant BarCap as material operating entities with core business lines and critical operations and activity in the U.S. In the Resolution Plan, Barclays disclosed adjusted income by geographic region, including adjusted income from U.S. operations in excess of $10 billion for 2013, out of a total of over $42 billion for all geographic regions.

28. Defendant Barclays Capital, Inc. (previously defined as "BarCap") is incorporated in the State of Connecticut and is a wholly owned indirect subsidiary of Defendant Barclays. BarCap is headquartered in New York, with numerous domestic branch offices throughout the U.S. and engages in investment banking, wealth management and investment management services. BarCap is a member of the CME and other U.S. exchanges and has been registered with the CFTC as a Futures Commission Merchant since 1990, an approved Exempt Foreign agent since 1992, and a Commodity Pool Operator and Commodity Trading Advisor since 2009.

29. Defendants Barclays and BarCap are sometimes referenced together in this Complaint as "Barclays."

3. The BNP Paribas Defendants

30. Defendant BNP Paribas Group ("BNP Paribas") is a French bank and financial services company headquartered at 16 Boulevard des Italiens, Paris, France 75009. BNP Paribas is also a New York State chartered institution, licensed by the New York Department of Financial Services. BNP Paribas has vast banking operations in the U.S., holding its U.S. offices out as a "key hub" for its global network. BNP Paribas also reports on its website that it has been present in the U.S. since the "late 1800s" and, according to its 2013 Annual Report, currently has 14,000 employees (including its subsidiaries) in the U.S. BNP Paribas offers a full range of banking services, with U.S. core businesses that "mirror" the Bank's global organization, including Investment Solutions, Retail Banking, and Corporate & Institutional Banking ("CIB"). The CIB division of BNP Paribas is the global investment banking arm of BNP Paribas and houses its Fixed Income division and FX spot trading business, including "G10 Rates". BNP Paribas' CIB division operates a principal trading hub in New York, where FX spot traders in New York communicate with BNP Paribas FX spot traders in London throughout

the trading day with the flip of a switch on the trading desk. BNP Paribas has offices located in Manhattan at 787 Seventh Avenue, New York, New York 10019. In 2011, BNP Paribas filed a notice of intent and was approved by the New York Department of Financial Services to establish and maintain an additional branch office at 51 W. 52nd Street in Manhattan.

31. BNP Paribas' operations in the U.S., other than retail banking, are headquartered in New York, with operations throughout the U.S., including in Chicago; Houston; Miami; Boston; Jersey City and Iselin, New Jersey; McLean, Virginia; Reading and King of Prussia, Pennsylvania; and San Francisco and Los Angeles, California. BNP Paribas discloses revenues exceeding $5.6 billion from U.S. and other operations in the Americas. According to a Resolution Plan BNP Paribas filed in 2013 with the Fed, as required by Dodd-Frank, BNP Paribas reported that its New York branch is a legal and operational extension of BNP Paribas and thus, is not a separate legal entity, and that BNP Paribas' New York branch primarily conducts banking activities for the CIB operating division.

32. In 2014, BNP Paribas agreed to a comprehensive settlement with the U.S. Department of Justice and U.S. Attorney's Office for the Southern District of New York, the Fed, the New York County District Attorney's Office, the New York Department of Financial Services and the U.S. Department of the Treasury's Office of Foreign Assets Control, as well as to a felony guilty plea, entered into by BNP Paribas S.A., and an $8.8 billion fine in connection with BNP Paribas's violation of U.S. laws and regulations imposing economic sanctions by funneling billions of dollars from blacklisted countries – Sudan, Iraq and Cuba – through its U.S. operations. BNP Paribas violated U.S. law by covertly clearing U.S. Dollars through U.S. branches. According to the Notes to its Consolidated Financial Statements at June 30, 2014, BNP Paribas also agreed in advance of the settlement to a remediation program and established

"a new department called Group Financial Security US, part of the Group Compliance function … headquartered in New York … to ensure[] that BNP Paribas complies globally with US regulation related to international sanctions and embargoes." BNP Paribas further reported in its Consolidated Financial Statements that "all USD [U.S. Dollar] flows for the entire BNP Paribas Group will be ultimately processed and controlled via the branch in New York."

33. Defendant BNP Paribas North America Inc. ("BNP Paribas N.A.") is a Delaware corporation headquartered at 787 7th Avenue, New York, New York 10019. BNP Paribas N.A. provides corporate, investment banking, and securities brokerage activities and is an affiliate of BNP Paribas. BNP Paribas N.A.'s wholly-owned subsidiary, BNP Paribas Securities Corp., is a registered broker-dealer with the U.S. Securities and Exchange Commission ("SEC") and is a registered Futures Commission Merchant with the CFTC under the Commodity Exchange Act.

34. Defendants BNP Paribas and BNP Paribas N.A. are sometimes referenced together in this Complaint as "BNP Paribas."

4. The Citibank Defendants

35. Defendant Citigroup, Inc. ("Citigroup") is a Delaware corporation headquartered at 399 Park Ave, New York, New York 10022.

36. Defendant Citibank, N.A. (previously defined at Citibank) is federally-chartered national banking association headquartered at 399 Park Avenue, New York, New York 10022 and is a wholly owned subsidiary of Defendant Citigroup, Inc. Defendants Citigroup and Citibank filed a Resolution Plan with the Fed in which they disclosed the use of a variety of foreign exchange products to hedge or manage exposures to currency fluctuations related to investments made in non-U.S. subsidiaries and other non-U.S. dollar assets. Citigroup and Citibank also provide international services, including FX services across as many as 100

countries, for U.S. corporations and institutional global clients. FX is identified in Citigroup and Citibank's Resolution Plan as a core business line that includes FX spot, forwards and derivatives. In its Annual Report for 2013 on Form 10-K filed with the SEC, Citigroup disclosed that its revenues from FX trading activities generated $2.224 billion from FX spot, forward, option and swap contracts, as well as FX translation gains and losses.

37. Defendants Citigroup and Citibank are sometimes referenced together in this Complaint as "Citigroup."

5. The Credit Suisse Defendants

38. Defendant Credit Suisse Group AG ("Credit Suisse Group") is a Switzerland-based holding company with headquarters located at Paradeplatz 8, CH 8001, Zurich, Switzerland. Credit Suisse Group is registered in the U.S. as a financial holding company, and its stock is traded in the form of ADRs on the NYSE under the ticker symbol "CS". As a financial holding company, Credit Suisse Group may engage in a broad range of non-banking activities in the U.S., including securities, private equity and other financial activities. In its Annual Report on Form 20-F for year-end 2013 filed with the SEC, Credit Suisse Group disclosed that it has operations in the U.S., Canada, the Caribbean and Latin America (the "Americas") with 11,100 employees working in 43 offices spanning 14 countries. Credit Suisse Group's bank subsidiaries are regulated in Switzerland by FINMA. Credit Suisse Group's non-banking operations also are subject to examination by the Fed in its capacity as Credit Suisse Group's U.S. umbrella supervisor.

39. Defendant Credit Suisse AG ("Credit Suisse") is a Swiss bank and part of the Credit Suisse Group, a global financial services holding company headquartered in Zurich, Switzerland. Credit Suisse has its Swiss headquarters at Paradeplatz 8, CH 8001, Zurich,

Switzerland. Credit Suisse also has a substantial branch in New York and is licensed by the New York Department of Financial Services with a registered address at 11 Madison Avenue, New York, NY 10010-3698. As set forth in the Resolution Plan that Credit Suisse, a "covered bank" under Dodd-Frank, submitted to the Fed in June 2014, Credit Suisse also is subject to regulation in the U.S. by the Federal Reserve Bank of New York, and its New York branch is designated as a material entity. Under a twenty-year lease, Credit Suisse leases over 1 million square feet and 11 floors of space in its Manhattan office, known as its Americas headquarters. Credit Suisse employs at least 98 persons in New York, according to a Declaration by Pierre Schreiber, a Managing Director of Credit Suisse, which Credit Suisse filed in this District in connection with the *LIBOR* litigation, *In re LIBOR-Based Financial Instruments Antitrust Litig.*, No. 11-MD-2262-NRB (ECF No. 767). Credit Suisse also maintains representative offices in Los Angeles, San Diego and San Francisco, California, as well as direct and indirect subsidiaries in the U.S.

40. According to its Resolution Plan, Credit Suisse operates a significant number of core business lines and two global divisions, including its Investment Banking division. Within its Investment Banking division, Credit Suisse operated a foreign exchange and commodities business in its fixed income sales and trading business, which it described as one of its "vital" lines of business to the Credit Suisse organization. The Emerging Markets Group of Credit Suisse, which had trading hubs based in London and New York, "trades in cash and derivatives across foreign exchange" and has a "global presence with dedicated and regional country teams." Credit Suisse further disclosed in its Resolution Plan that it enters into derivative FX contracts, including privately negotiated OTC contracts and standard contracts traded on regulated exchanges, including FX options and futures contracts. In late 2013, Credit Suisse reshuffled its

FX trading ranks and created a "Global Macro Products" group, which combined FX, rates and commodities teams led in part from New York-based department heads.

41. According to Credit Suisse's Annual Report on Form 20-F filed with the SEC in March 2014, its FX business includes "market making in products such as spot and options for currencies in developed markets" and its U.S. business emphasis was on "core client-focused and high-returning businesses in Investment Banking." In its 2013 Annual Report, Credit Suisse Group reported that it is listed on the NYSE and other exchanges, and that 80 percent of its shareholder base consisted of institutional investors, with 48 percent of those comprised of U.S. shareholders, as compared to 16 percent in Switzerland. Credit Suisse Group further reported net revenues and income before taxes by geographic location in the amount of 10,810 (CHF million) from continuing operations in the Americas (U.S., Canada, the Caribbean and Latin America) and 8,035 (CHF million) for Switzerland, which were based upon the location of the office recording the transaction; and total assets of 398,198 (CHF million) for the Americas and 200,044 (CHF million) for Switzerland, which were based upon the region of the customer's domicile. Credit Suisse also reported trading revenues from FX products, including market making and positioning, in the amount of 1,203 (CHF million), out of total trading revenues in the amount of 2,739 (CHF million) for 2013.

42. Credit Suisse also reported in its Annual Report for 2013, which it jointly filed with Credit Suisse Group, that the business of both Credit Suisse and Credit Suisse Group is substantially similar, they share the executives on their Executive Boards, and both maintain a shelf registration statement with the SEC, which allows them each to issue, from time to time, debt and other securities. Credit Suisse's Annual Report also disclosed that Credit Suisse Group transacts bilateral OTC derivatives, and for the end of 2013, it reported offsetting derivatives for

2013, including OTC and Exchange-traded FX products, in the amount of 58.6 (CHF billion) in assets, and 68.4 (CHF billion) in liabilities.

43. Defendant Credit Suisse Securities (USA) LLC ("Credit Suisse Securities") is a Delaware limited liability company headquartered at 11 Madison Avenue, New York, New York 10010, and is an indirect wholly owned subsidiary of Credit Suisse AG. Credit Suisse Securities has approximately 7,840 employees in the U.S., with approximately 5,600 located in New York. Credit Suisse Securities also is a clearing member of the CME and is registered as a Futures Commission Merchant with the CFTC. Credit Suisse Securities also is registered with FINRA, and its registration reflects that: "Credit Suisse Securities arranges for customers to enter into foreign exchange transactions with Credit Suisse Securities (USA) LLC, Credit Suisse International, Pershing, or Credit Suisse London Branch, including spots forwards, swaps, and options … and handles customer orders in financial futures and trades financial futures for its own account."

44. Defendants Credit Suisse Group, Credit Suisse and Credit Suisse Securities are sometimes referenced together in this Complaint as "Credit Suisse."

6. The Deutsche Bank Defendant

45. Defendant Deutsche Bank AG (previously defined as Deutsche Bank) is a German financial services company headquartered in Frankfurt, Germany and has a registered office at 60 Wall Street, New York, New York 10005-2858. Deutsche Bank's New York branch, through its employees in its Manhattan office, directly engages in U.S. banking activities. The Manhattan office is the headquarters for Deutsche Bank's 1.6 million square foot Regional Head Office, where Deutsche Bank employs thousands of employees and executives. Deutsche Bank maintains a New York branch licensed through the New York Financial Services

Division. It also operates through a New York-chartered bank holding company, a Delaware-chartered holding company, and a New York State-chartered insured depository institution. In the U.S., Deutsche Bank has an indirect wholly-owned subsidiary, Deutsche Bank Securities, Inc. ("DBSI"), which is a Delaware-chartered broker-dealer and investment adviser that is registered with the SEC. DBSI also is a commodity pool operator and Futures Commission Merchant, which is registered with the CFTC. Deutsche Bank and DBSI share certain employees and executives.

46. Deutsche Bank's New York branch is a branch of Deutsche Bank and is regulated by the Fed and the CFTC as a registered swap dealer. According to the Resolution Plan that Deutsche Bank filed with the Fed in 2014, through its New York branch, Deutsche Bank "engages primarily in traditional lending and deposit activities, as well as trading activities dealing with derivatives (primarily interest rate-related derivatives) and cash financial products." The New York branch also operates a core line of business for Deutsche Bank in a business unit known as Fixed Income and Currencies ("FIC"), which, among other things, engages in all aspects of the FX business, including trading spot, FX derivatives and forward markets.

47. Deutsche Bank's FX trading in the U.S. through its New York branch operates across several entities. According to its 2014 Resolution Plan, Deutsche Bank executes FX trades mainly through its London branch, but it also executes FX trades through its New York branch and then books these trades in Deutsche Bank's London branch. Deutsche Bank further reported in its Resolution Plan that "the majority of USD collateral is held in non-segregated accounts" at Deutsche Bank's New York branch. Deutsche Bank also reported to the Fed that "most of the traders and sales force effecting FX transactions with U.S. clients are employed by Deutsche Bank's New York branch, and "certain support staff are employed by DBSI."

7. The Goldman Sachs Defendants

48. Defendant The Goldman Sachs Group, Inc. ("Goldman Sachs Group") is a Delaware corporation headquartered at 200 West Street, New York, New York 10282. The Goldman Sachs Group Inc. is a bank holding company and a financial holding company.

49. Defendant Goldman, Sachs & Co. ("Goldman Sachs") is a wholly owned subsidiary of the U.S. financial services corporation, Goldman Sachs Group, and is its principal operating subsidiary in the U.S. Goldman, Sachs & Co. is located at 200 West Street, New York, New York 10282. Goldman Sachs Group disclosed in its Resolution Plan filed with the Fed in 2014 that it provides a global multi-currency cash settlement system to settlement trades related to FX spot, forwards, options, swaps, credit derivatives and seventeen major currencies. Goldman Sachs Group also disclosed that it enters into various derivative contracts, including futures, forwards, swaps and options contracts. In its Annual Report for 2014 on Form 10-K filed with the SEC, Goldman Sachs Group disclosed that its Institutional Client Services division makes markets and services clients in currency and other commodity products on a global basis. Goldman Sachs Group also disclosed $6,566 billion in market making revenues in currency transactions. Through its J. Aron & Company subsidiary, Goldman Sachs Group acts as a commodity and FX market maker. Goldman Sachs also delivers FX services through teams around the world and is a registered Futures Commission Merchant with the CFTC. Goldman Sachs also has a voice execution futures desk with presence in New York, Chicago, San Francisco, London, Hong Kong, Sydney and Tokyo, according to its website.

50. Defendants Goldman Sachs Group and Goldman Sachs are sometimes referenced together in this Complaint as "Goldman Sachs."

8. The HSBC Defendants

51. Defendant HSBC Holdings plc ("HSBC Holdings") is a United Kingdom public limited company headquartered in London, England. HSBC Holdings and its subsidiaries provide services in HSBC Holdings' network covering 75 countries and territories organized into geographic regions, with approximately 16,000 employees in the U.S. HSBC discloses approximately $22.6 billion in profit before tax for the year ended December 31, 2013, with $8.8 billion in revenue and $1.221 billion in profit before tax in North America. HSBC's ADRs are listed on the NYSE.

52. Defendant HSBC Bank plc (previously defined as HSBC) is a United Kingdom public limited company headquartered in London, England and is a wholly owned subsidiary of HSBC Holdings PLC. As a full-service bank, HSBC operates four business segments, including a Global Banking and Markets segment that houses its Global FX and Commodities business. HSBC's core business lines in the U.S. include Global Markets FX, which provides services in FX spot, forwards, swaps and other related derivatives. HSBC's London G10 FX trading desk is part of the Global FX and Commodities business. HSBC's Global Markets in the U.S. delivers international products to U.S. clients and serves in New York as a hub for HSBC's Americas business, including Canada and Latin America. HSBC's affiliate, HSBC Securities (USA) Inc. is a registered broker-dealer with the SEC and a registered Futures Commission Merchant with the CFTC and engages in trading debt and equity securities, including as a primary dealer of US government and government agency securities, and futures contracts.

53. Defendant HSBC North America Holdings Inc. ("HSBC Holdings N.A.") is a Delaware corporation headquartered in New York, and is a wholly owned subsidiary of HSBC

Holdings PLC. Defendant HSBC Holdings N.A. is a bank holding company, and is the holding company for HSBC Holding's operations in the U.S.

54. Defendant HSBC Bank USA, N.A. ("HSBC US"), is a national banking association with its principal place of business in New York, New York, and is an indirect wholly owned subsidiary of HSBC Holdings N.A. HSBC US is HSBC Holdings' principal U.S. banking subsidiary, with 244 branches and 30 representative offices in the U.S., including 157 branches and 13 representative offices in the State of New York. HSBC U.S. has its principal executive offices at 452 Fifth Avenue, New York, New York. HSBC US is an international dealer in FX products and derivative instruments denominated in U.S. Dollar and other currencies. HSBC US is designated by HSBC Holdings as a "material entity" because of its important U.S. operations.

55. In its submission of a Resolution Plan to the Fed in July 2014, HSBC, a Systematically Important Financial Institution, identified HSBC Holdings N.A., HBSC US, HSBC Securities (USA) Inc. as material entities to HSBC's US operations, and identified HSBC as a non-U.S. material entity because of its connections with HSBC's US operations.

56. Defendants HSBC Holdings, HSBC, HSBC Holdings N.A., and HSBC US are sometimes referenced collectively in this Complaint as "HSBC."

9. The J.P. Morgan Defendants

57. Defendant J.P. Morgan Chase & Co. ("J.P. Morgan Chase") is a Delaware corporation headquartered at 270 Park Ave., 38th Floor, New York, New York 10017.

58. Defendant J.P. Morgan Chase Bank, N.A. (previously defined as J.P. Morgan) is a federally-chartered national banking association headquartered at 270 Park Avenue, 38th Floor, New York, New York 10017, and is a wholly owned subsidiary of Defendant J.P. Morgan

Chase. J.P. Morgan Chase disclosed in it Resolution Plan filed with the Fed in 2014 that a majority of its derivatives for market-making purposes and also enters into FX derivatives, including OTC and exchange-traded derivative contracts, as well as FX forward contracts, to mitigate or modify its FX and other exposure risks. J.P. Morgan Chase also disclosed that it seeks to earn a spread between its client derivatives and offsetting positions, and from the remaining open risk positions. In its Annual Report for 2013 filed on Form 10-K with the SEC, J.P. Morgan Chase disclosed that its Treasury and Chief Investment Office are predominantly responsible for monitoring and managing its FX risks. The line of business within J.P. Morgan Chase responsible for markets and client services for FX market making and other derivatives activities is known as the Corporate & Investment Bank division. J.P. Morgan Chase further disclosed that it had a notional amount of FX spot, futures and forwards derivative contracts in the amount of $3,773 billion at December 31, 2013.

59. Defendants J.P. Morgan Chase and J.P. Morgan are sometimes referenced together in this Complaint as "J.P. Morgan."

10. The Morgan Stanley Defendant

60. Defendant Morgan Stanley is a Delaware corporation headquartered at 1585 Broadway, New York, New York 10036. Morgan Stanley holds itself out as a financial holding company and global financial services firm. In its Annual Report for 2013 filed on Form 10-K with the SEC, Morgan Stanley discloses that it maintains significant market positions in business segments, including the Institutional Securities division through which it executes sales, trading, financing and market making activities in foreign exchange, commodities and other products. Morgan Stanley further discloses that a significant portion of its business is conducted in currencies other than the U.S. Dollar and therefore it employs strategies to reduce the impact of

exposure to currency fluctuations such as the use of currency forward or spot contract transactions. At December 31, 2013, Morgan Stanley reported a notional value of $1,818 billion in bilateral OTC FX contracts and $9.634 billion in exchange-traded FX contracts. Morgan Stanley filed a Resolution Plan with the Fed in 2014 disclosing that it trades and makes markets globally in listed futures, OTC swaps, forwards, options and other derivatives reference, among other things, currencies. Morgan Stanley further disclosed that it uses these instruments for trading and foreign currency exposure.

11. The Royal Bank of Scotland ("RBS") Defendants

61. Defendant The Royal Bank of Scotland Group plc ("RBS Group") is a United Kingdom public limited company and United Kingdom bank holding company with its headquarters at Gogarburn, Edinburgh, United Kingdom. RBS Group is registered in the U.S. as a bank holding company and a financial holding company, and it is subject to regulation and supervision by the Fed. In its Annual Report on Form 20-F for year-end 2013, filed with the SEC, RBS Group disclosed that it is subject to certain risks, including "Counterparty exposures" arising from foreign exchange and other transactions. It further disclosed that its FX currency exposures include net assets, net investment hedges and economic hedges related to U.S. Dollar, Euro and other non-sterling currencies.

62. Defendant The Royal Bank of Scotland plc (previously defined as RBS) is a United Kingdom public limited company headquartered at Gobarburn, Edinburgh, United Kingdom, and also has a registered office at 340 Madison Avenue, New York, New York 10173. RBS is a subsidiary of RBS Group. According to the CFTC settlement agreement with RBS over its FX manipulation, RBS is a British and financial services company headquartered in the

United Kingdom, and with operations in over 40 countries and territories, including in the U.S. RBS has been provisionally registered as a swaps dealer since December 31, 2012.

63. According to a Resolution Plan that RBS's parent company, RBS Group, a "covered bank" under Dodd-Frank, filed with the Fed in October 2014, RBS's New York, New York branch is supervised by the New York State Department of Financial Services, and its Stamford, Connecticut branch is supervised by the Connecticut Department of Banking. RBS Group designated RBS's New York and Connecticut branches as material entities, and both branches re subject to supervision by the Fed. RBS also is a member of ICE Clear Credit and the CME. In its Resolution Plan, RBS Group disclosed that 24 percent of its consolidated income in 2013 was generated from operations in the U.S. In its Annual Report, RBS Group disclosed total income in the amount of £19,757 million.

64. RBS Group's affiliate, RBS Americas Property Corp ("RBS Property"), is a Delaware corporation that provides property services to RBS Group's U.S.-based affiliates. One of RBS Property's principal assets is the Stamford, Connecticut headquarters of RBS, which comprises its North American headquarters. In 2009, RBS consolidated offices from Manhattan and Greenwich, Connecticut and underwent a $341 million renovation to create a state-of-the-art building located on 4.25 riverfront acres at 600 Washington Boulevard. RBS's headquarters in Stamford, Connecticut boasts approximately 1 million square feet of commercial space over twelve floors, with the 100,000 square-foot trading floor for up to 1,400 traders. RBS also has representative offices in Chicago, Illinois, Houston, Texas, New York, San Francisco, California, and Jersey City, New Jersey.

65. In the U.S., RBS provides fixed income and FX services to clients through an investment banking division known as "Markets and International Banking Americas".

According to RBS Group's Resolution Plan, hedging derivatives are booked to RBS's Connecticut branch. According to RBS's Annual Report for 2013, at least 20 percent of RBS's and its subsidiaries global revenue is attributable to the U.S.

66. In July 2011, RBS Group entered into an agreement with the Fed, the New York State Banking Department, the Connecticut Department of Banking and the Illinois Department of Financial and Professional Regulation to enter into a Cease and Desist Order to address risk management and compliance deficiencies at RBS and other subsidiaries and created a plan to strengthen board and senior management oversight of the corporate governance, management, risk management and operations of RBS Group's U.S. operations on an enterprise-wide and business line basis.

67. Defendant RBS Securities, Inc. ("RBS Securities") is a Delaware corporation headquartered at 600 Washington Boulevard, Stamford, Connecticut 06901. RBS Securities is RBS Group's primary U.S. broker-dealer and is subject to regulation by the SEC and FINRA for securities activities, and is registered as a Futures Commission Merchant with the CFTC. RBS Securities conducted a global FX trading business through its Global Banking and Markets Strategy Group, with numerous traders based in Stamford, Connecticut. RBS Securities' FINRA registration specifies that it "engages in swaps and foreign exchange brokerage." RBS and RBS Securities both are members of the CME.

68. Defendants RBS Group, RBS and RBS Securities are sometimes referenced together in this Complaint as "RBS."

12. The UBS Defendants

69. Defendant UBS AG (previously defined as UBS) is a global financial institution with its Swiss headquarters and its principal place of business at Bahnhofstrasse 45, Zurich

Switzerland, and at Aeschenvorstadt 1, 4051 Basel, Switzerland, respectively. UBS has offices in more than 50 countries, including branches and representative offices in New York, Connecticut, Florida, Illinois and California. UBS's has its U.S. headquarters in a 930,000 square-foot high-rise building in Manhattan, located at 1285 Avenue of the Americas, New York, New York 10019. UBS has maintained a 12-acre campus at 677 Washington, Boulevard in Stamford, Connecticut, since 1997. In 2011, UBS signed a long-term incentive plan offered by the Governor of Connecticut, including $20 million in forgivable loans, for the Stamford office location on the condition that UBS maintain at least 2,000 jobs at the Stamford headquarters through 2017. Last year, in October 2014, UBS extended the agreement to 2021. UBS maintains trading hubs in both the New York, New York, and Stamford, Connecticut sites.

70. UBS is subject to oversight regulation by the Fed and is designated as a financial holding company under U.S. law, which allows UBS to engage in a broad spectrum of activities in the U.S. In Switzerland, UBS's regulator is FINMA. All of UBS's branches in the U.S. are licensed by the OCC or state banking authorities. In its Resolution Plan filed with the Fed in July 2014, UBS reported that it had consolidated assets of approximately CHF 1,010 billion, with the great majority in Switzerland, the United Kingdom and the U.S. UBS has its Global Registered Shares listed on the NYSE, Zurich and Tokyo Stock Exchanges.

71. In the U.S., UBS operates three business divisions, including the Investment Bank division, which houses UBS's sales, trading and market making across a range of products, including FX spot, forwards, swaps and options. In its Resolution Plan, UBS reported that it "engaged in extensive high volume market-making and client facilitation trading referred to as the flow business." The CFTC Order and Settlement with UBS regarding FX manipulation reported that "the Investment Banking division of UBS is responsible for its FX business" and

that traders' attempts to manipulate certain FX "benchmark rates involved multiple currencies, including the [U.S. Dollar], Euro and British Pound Sterling." The CFTC further confirmed in its Settlement Order that UBS's FX manipulation involved traders on trading desks and offices located in at least Stamford, Connecticut and Zurich, Switzerland. In addition to traders in the Stamford, Connecticut office, UBS has suspended traders on its New York foreign exchange trading desk.

72. Defendant UBS Securities LLC ("UBS Securities") is a Delaware limited liability company with its main office location at 1285 Avenue of the Americas, New York, New York 10019. USB Securities leases space from its UBS affiliates and shares space with UBS in its offices located in Stamford, Connecticut. UBS Securities is an indirect wholly-owned subsidiary of UBS, and UBS has designated UBS Securities as a material entity in its Resolution Plan filed with the Fed. UBS Securities is regulated by the SEC and FINRA and also is a Futures Commission Merchant licensed and regulated by the CFTC. UBS Securities, in regulatory filings required by the CFTC, discloses that it provides a full range of investment banking services, including trading and sales.

73. In its firm profile registered with FINRA, UBS Securities discloses that UBS owns between 25 and 50 percent of UBS Securities and directs the management or policies of the firm. It also discloses that several individual Managing Directors each own less than 5 percent of UBS Securities, including Managing Directors that are FX traders and risk managers. UBS Securities shares employees, including FX traders, with UBS. In UBS Securities' Futures Commission Merchant Disclosure Document, it discloses that some of the responsibilities of its Managing Directors and FX traders "include coordination and monitoring between the different product teams, and review of significant business initiatives with regard to financial, reputational

and transactional risk." These Futures Commission Merchant disclosures further disclose that UBS Securities' FX Prime Brokerage and Clearing services includes futures.

74. Defendants UBS and UBS Securities are sometimes referenced together in this Complaint as "UBS."

* * *

75. Defendants Bank of America Corporation, BofA, Barclays, Barclays Capital Inc., BNP Paribas Group, BNP Paribas N.A., Citigroup, Citibank, Credit Suisse Group, Credit Suisse, Credit Suisse Securities, Deutsche Bank, The Goldman Sachs Group, Inc., Goldman, Sachs & Co., HSBC Holdings, HSBC, HSBC Holdings N.A., HSBC US, J.P. Morgan Chase & Co., J.P. Morgan, Morgan Stanley, RBS Group, RBS, RBS Securities, UBS, UBS Securities are collectively referred to herein as "Defendants".

76. "Defendants" as referred to herein, includes, in addition to those named specifically above, all of the named Defendants' predecessors, including those merged with or acquired by the named Defendants and each named Defendant's wholly owned or controlled subsidiaries or affiliates that played a material role in the unlawful acts alleged in this Complaint.

13. The John Doe Defendants

77. Defendants John Doe 1-50 are persons and entities employed by Defendants or others that directly or indirectly inappropriately influenced or attempted to influence FX rates and the London Fix. The defined term "Defendants" also includes John Doe Defendants.

14. Agents and Unnamed Co-Conspirators

78. During the Class Period, Defendants' subsidiaries or other affiliates of Defendants joined and furthered the conspiracy by trading FX Futures and other FX related instruments at

manipulated prices not reflecting fundamental supply and demand, to the direct benefit of Defendants.

79. Whenever reference is made to any act of any corporation, the allegation means that the corporation engaged in the act by or through its directors, officers, employees, or agents while they were actively engaged in the management, direction, control, or transaction of the corporation's business or affairs.

80. Each of the Defendants named herein acted as the agent of or participated in a joint venture for the other Defendants with respect to the acts, violations, and common course of conduct alleged herein.

IV. FACTUAL ALLEGATIONS

A. Defendants' Manipulation of FX Spot Prices and Benchmark Rates Caused Artificial and Manipulated FX Futures Prices

81. As detailed below, beginning at Section IV.E. *infra*, global regulators have entered into settlements with six of the defendant banks, finding these banks actively colluded with other broker banks to manipulate FX spot prices and FX benchmark rates. This manipulation directly manipulated prices Plaintiffs and members of the proposed Class paid on their FX Futures transacted on the Relevant Exchanges (*see* Section IV.A.3. *infra*).

1. The FX Futures Market

82. In an FX futures contract, an investor agrees to buy or sell a foreign currency at a set price and date in the future. Futures contracts are required to be traded on exchanges. These exchanges, like the Relevant Exchanges, are known as designated contract markets and are regulated by the CFTC. The Relevant Exchanges are designated contract markets located in, *inter alia*, Chicago, Illinois and New York, New York. The Relevant Exchanges provide a platform for trading FX Futures.

83. The CME offers at least 49 currency futures contracts with over $100 billion in daily liquidity. As explained below, this liquidity did not prevent these markets from being manipulated by the Defendants. FX futures are based upon the exchange rates of the two currencies at issue in the contract. Major cross-rate FX futures contracts include contracts on Euros vs. U.S. Dollars (EUR/USD), designated on the CME as contract 6E; Japanese Yen vs. U.S. Dollars (JPY/USD), designated as contract 6J; British Pounds vs. U.S. Dollars (GBP/USD), designated as contract 6B; Swiss Francs vs. U.S. Dollars (CHF/USD), designated as contract 6S; Canadian Dollars vs. U.S. Dollars (CDN/USD), designated as contract 6C; and Australian Dollars vs. U.S. Dollars (AUD/USD), designated as contract 6A, among others. There is a wide array of currency futures contracts available – for example, for major currency pairs, for minor currency pairs, and for emerging markets currency pairs. Different contracts trade with varying degrees of liquidity; the daily volume for the EUR/USD contract might be 400,000 contracts, versus 30 contracts for an emerging market like Brazilian Real vs. U.S. Dollars (BRL/USD).

84. While FX Futures are traded on both the CME Globex electronic trading platform and on the exchange floor in an open outcry environment, the predominant mode of trade is electronic. FX futures contracts generally require delivery of a specified quantity of a specified currency,[3] or a cash settlement, during the months of March, June, September and December, (known as the March Quarterly Cycle). The quarterly settlement date is the third Wednesday in March, June, September and December, with trading ending on the second business day before the third Wednesday of the contract month (the "Settlement Date").

[3] For example, the trade units for the three most actively traded CME FX futures contracts are: for the EUR/USD – 125,000 EUR; for the JPY/USD – 12,500,000 JPY; and for the GBP/USD – 62,500 GBP.

2. Trading in FX Futures Contracts

85. FX Futures contracts are agreements created and marketed by the Relevant Exchanges. FX futures contracts have highly standardized terms directed to, *inter alia*, the specific currencies pairs at issue, the quantity of currency to be exchanged, the delivery time and the delivery place. The single open variable on exchange-traded FX Futures contracts is price, which, absent collusion and manipulation as alleged herein, is determined by competition at the date and time the contract is entered into.

86. Exchange-traded FX futures contracts have two "sides" – the "long" side and the "short" side. A trader who "goes long" or, for example, enters into a June 2015 FX contract to ***buy*** Japanese Yen in exchange for U.S. Dollars, is committed to take or accept delivery of 12,500,000 JPY on the third Wednesday of June 2015. Conversely, a trader that "goes short" or, for example, enters into a March 2015 FX contract to ***sell*** Euros in exchange for U.S. Dollars, is committed to make delivery of 125,000 Euros on the third Wednesday of March 2015.

87. In addition to FX futures contracts, Relevant Exchanges also offer FX options on futures, which settle based on FX futures contract prices. Exchange traded FX options are similar to exchange traded futures with respect to their high degree of standardization, such that price is the only competitive variable, with the price being determined, absent Defendants' collusion and manipulation as alleged herein, by competition.

88. There are two types of options: calls and puts. A call gives the holder of the FX option the right, but not the obligation, to buy the underlying FX Futures contract at a certain price – the strike price. Conversely, the put gives the holder the right, but not the obligation, to sell the underlying FX futures contract at the strike price. Puts are usually bought when the

expectation is for neutral or falling futures prices; a call is usually purchased when the expectation is for rising futures prices.

89. The price at which an option is bought or sold is the option premium. The option premium is directly affected by the underlying price of the FX futures contract, and of the FX spot prices for the underlying currency.

3. Settling FX Futures Contracts

90. There are two primary methods of settling FX futures contracts. For each method, the settlement value of the contract is calculated by comparing the price when the contract was entered to the price when the contract is closed. By far the most common method is for buyers and sellers to close their positions prior to the final Settlement Date on the contract. Traders do this by offsetting their original positions by taking an opposite position. Thus, a trader long 10 June 2105 EUR/USD contracts could close the position by going short 10 June 2015 EUR/USD contracts. When an opposite position closes the trade prior to the Settlement Date, a profit or loss is credited to or debited from the trader's account. The difference between the initial purchase or sales contract price and the contract price of the offsetting transaction represents the realized profit or loss per each contract.

91. According to the CME, the calculation of the daily settlement price ("Daily Settlement Price") for FX futures contracts is based on trading activity on the CME Globex. The CME website describes CME Globex as follows:

> CME Globex is the foremost global electronic trading system for futures and options on futures. Through its advanced functionality, high reliability, and global connectivity, it is the world's premier marketplace for derivatives trading. CME Globex provides access to the broadest array of futures and options products available on any platform, virtually around the clock, from anywhere in the world.

92. The CME Daily Settlement Price is a critical benchmark as it provides the basis for, *inter alia*, the pricing of American-style FX options. This price has particular importance on option expiration dates (usually Fridays), when the CME uses it to force the exercise of in-the-money options for Great Britain Pounds, Canadian Dollars, Euros, Japanese Yen, Swiss Francs and Australian Dollars, and to impose automatic forced abandonment of all out-of-the-money options. The calculation of the CME Daily Settlement Price is based on the volume weighted average prices of underlying futures contracts traded on CME Globex during the 30 second window ending at 2:00 p.m. Central Time ("CT") (the "CME Daily Settlement Fix"). According to the CME, the use of the CME Daily Settlement Fix, particularly in connection with weekly expiring options, enables CME Clearing, clearing firms and their customers to predict shortly after 2:00 p.m. CT on Fridays which expiring FX options positions will be assigned futures positions.

93. Only a small percentage of FX Futures contracts are held until the Settlement Date, at which time the contract is cash-settled or physically delivered, depending on the specific contract. Most FX Futures are subject to a physical delivery process four times a year, on the Settlement Date. Setting the settlement price of an FX Futures contract is not dependent on whether it is cash settled or physical delivery occurs.

94. For FX Futures held until the Settlement Date, the final settlement price is determined by the CME based on trading prices in the relevant contract during the 30 second period between 9:15:30 a.m. and 9:16:00 a.m. CT on the Settlement Date.

95. The ICE Futures U.S. Exchange ("ICE") is home to 60 currency futures contracts, as well as the actively-traded U.S. Dollar Index ("USDX") futures and options contracts. ICE also allows Trade at Settlement ("TAS") for certain FX Futures contracts traded on the ICE

electronic trading platform.[4] TAS allows a trader to enter an order to buy or sell a futures contract during the trading day at a price equal to the Exchange's daily settlement price for that contract, or at a price up to five ticks above or below the settlement price. The daily settlement window for USDX futures and options and currency pair futures on ICE is 2:59 to 3:00 p.m. (Eastern time), which is 2:00 p.m. CT.

4. Settlement of FX Futures Contracts Is Directly Tied to Spot Prices and Therefore, Manipulation of FX Spot Prices Caused Manipulation of FX Futures Prices

96. The prices of FX Futures run in parity, or lock-step, with spot market prices and changes in spot market prices are immediately and correspondingly reflected in FX Futures prices. Thus, the manipulation of FX spot prices is a manipulation of the price of the commodity underlying the FX Futures contracts – the exchanged currency pair and/or the currency exchange rate. This is because the spot prices and benchmark exchange rates act just like the prices of any other commodity for the purposes of settlement and price discovery. It is the reference price for futures contracts, just as the physical price of soybeans or silver is the reference price for their respective futures contracts traded on exchanges.

97. The CFTC highlights this market fundamental in its settlements with each of Citibank, HSBC, J.P. Morgan, RBS and UBS, where it found:

> Exchange rates in many actively traded CME foreign exchange futures contracts, including the Euro/U.S. Dollar (EUR/USD) futures, the U.S. Dollar/Japanese Yen (USD/JPY) futures, and British Pound Sterling/U.S. Dollar (GBP/USD) futures, **track rates in spot foreign exchange markets at near parity** after adjusting for

[4] TAS settlement is available on ICE Futures U.S. for the following currency index and currency pair contracts: USDX, Australian dollar/US Dollar (KAU), Brazil Real/US Dollar (KBX), British Pound/US Dollar (MP) Euro/Australian Dollar (KRA) Euro/British Pound (KGB) Euro/Canadian Dollar (KEP) Euro/Japanese yen (KEJ) Euro/Norwegian krone (KOL) Euro/Swedish krona (KRK) Euro/Swiss franc (KRZ) Euro/US Dollar (KEO)
Indian Rupee/US Dollar (KIU) and Swiss franc/Japanese yen (KZY).

> the forward differential, or adding or subtracting "forward points." (Emphasis added).

98. FX Futures contract prices are set at the date and time such contracts are entered into, whether they are opening contracts or offsetting, closing contracts. Over the course of a trading day, FX Futures prices reflect and are directly tied to corresponding FX spot prices. Because Defendants' manipulation caused FX spot prices to trade at artificial prices during certain intervals, Defendants' manipulation equally caused FX Futures contracts entered into during those intervals to trade at manipulated, artificial prices.

99. As detailed herein, Defendants actively manipulated FX benchmark rates, such as the London Fix. Certain FX Futures are priced based on FX fixing rates. For example, as the CFTC found in its settlements with Citibank, HSBC, J.P. Morgan, RBS and UBS:

> FX benchmark rates, including the WM/R Rates, are used to price a variety of transactions including foreign exchange swaps, cross currency swaps, spot transactions, forwards, **options, futures, and other financial derivative instruments**. (Emphasis added).
>
> * * *
>
> Foreign exchange futures contracts are connected to FX benchmark rates. The CME Russian Ruble/U.S. Dollar (RUB/USD) futures contract, for instance, is a cash settled futures contract for which the final settlement rate, a component of the contract's price, is equal to the reciprocal of the EMTA Russian Ruble/U.S. Dollar benchmark rate.

100. Defendants' manipulation of FX spot prices and FX benchmark rates therefore caused injury to FX Futures traders, like Plaintiffs and the members of the Class, whose FX Futures contract prices were affected by or set at manipulated prices.

B. Expert Data Analysis Further Supports that FX Futures Prices Were Manipulated

101. Plaintiffs retained an expert consultant who undertook econometric data analysis using peer-reviewed analytic techniques to determine whether FX Futures prices were

manipulated throughout the Class Period. The expert consultant designed computer models to analyze FX Futures pricing data, including using as one indicia of manipulation identifying instances of price reversals – a spike up in price followed by a decrease back down, or a drop in price, followed by a spike back up. According to peer-reviewed expert finance theory, price changes in competitive markets act in random, not in predictably consistent patterns. In relation to FX market pricing, this means that successive price movements will be statistically uncorrelated. The pattern of reversals observed by the expert consultant in his analysis of FX Futures pricing data during the Class Period demonstrated strong statistical correlation related to pricing reversals in connection with the setting of the London Fix and the CME Daily Settlement Fix. The expert consultant determined that with respect to these suspect pricing reversals, the evidence supports that the FX Futures price movements reflected by the first leg of the reversal were not driven by fundamentals, but instead by artificial manipulation, and that when the manipulation ceased, market fundamentals caused the FX Futures prices to substantially reverse.

102. In conducting his analysis, the expert consultant analyzed G10 currencies paired with the U.S. Dollar, including the Euro, British Pound, Japanese Yen, Canadian Dollar and Australian Dollar. The expert consultant's analysis strongly supports the finding that FX Futures prices were actively manipulated over the Class Period in connection with G10 currencies.

103. The expert consultant's analysis found evidence of FX Futures price manipulation to be strongly statistically significant around the setting of critical benchmarks, particularly the London Fix. The regulatory settlements include evidence that FX price manipulation in the spot market pursuant to Defendants' schemes occurred over a significant period of time preceding the setting of the London Fix (*see, e.g.*, ¶ 239 *infra*, where the FCA found as the result of manipulation by, *inter alia*, HSBC, the GBP/USD rate fell from 1.6044 to 1.6009 over the almost

thirty minute period between 3:32 and 4:00 p.m.). Plaintiffs' expert consultant also found strong evidence to support that manipulation of FX Futures prices occurred over a period beginning at least as early as 45 minutes in advance of 4:00 p.m. London time (*i.e.*, in advance of 11:00 a.m. ET or 10:00 a.m. CT), when the London Fix is set. Separately, the expert consultant also found strong statistical evidence to support active FX Futures price manipulation in advance of 2:00 p.m. CT, when, *inter alia*, the CME Daily Settlement Fix is set (*see, e.g.*, ¶ 92 *supra*).

104. Because of the number of suspect FX Futures pricing reversals and the fact that they occurred consistently and at specific times, *e.g.*, in connection with the setting of the 4:00 p.m. London Fix, the expert consultant further determined that the data strongly support a finding that the suspect pricing reversals were the result of price manipulation, and not the result of other factors.

C. The FX Spot Market

1. Trading in the FX Spot Market

105. The FX spot market is the world's largest and most liquid financial market. In the FX spot market, participants actively buy, sell, exchange and speculate on currencies. The spot contract is used for immediate exchange of funds. Pricing of FX spot rates is determined by supply and demand of the currency in the market, and the integrity of the FX market is of central importance to the global financial system.

106. In its most recent triennial survey of Central Banks, the Bank for International Settlements ("BIS") determined that the daily average volume turnover of the global FX market was over $5 trillion in April 2013, up from $4 trillion in April 2010. U.S. trading in FX averaged $1.263 trillion per day in April 2013, an increase from $864 billion in April 2010. According to the BIS, this growth in FX trading during the Class Period was driven by market

participation by broker banks (such as the Defendants) and their counterparties, consisting of financial institutions, including pension funds, mutual funds, insurance companies, and hedge funds.

107. As with FX Futures, in the spot market, currencies are traded in pairs, consisting of a base or fixed currency and a variable currency. The BIS reported that in April 2013, the U.S. Dollar was on one side of 87% of all FX transactions globally, and traded in 89% of all FX transactions in the U.S.

108. Notwithstanding its ostensible liquidity, the FX spot market is extremely concentrated and susceptible to manipulation by market actors, such as Defendants, who dominate the market, and in fact was manipulated by the Defendants during the Class Period.

2. Defendants Dominate the Concentrated FX Spot Market

109. Beginning in the late 1990s, the FX market experienced a substantial increase in concentration. During the Class Period, Defendants dominated the global FX spot market. According to the 2012 and 2013 FX Surveys by *Euromoney*, an industry publication, Defendants' individual and aggregate shares of the global FX spot market for these two years were:

Defendant	2012 Market Share (Rank)	2013 Market Share (Rank)
Deutsche Bank	14.57% (1)	15.18% (1)
Citibank	12.26% (2)	14.90% (2)
Barclays	10.95% (3)	10.24% (3)
UBS	10.48% (4)	10.11% (4)
HSBC	6.72% (5)	6.93% (5)
J.P. Morgan	6.60% (6)	6.07% (6)
RBS	5.86% (7)	5.62% (7)
Credit Suisse	4.68% (8)	3.70% (8)
Morgan Stanley	3.52% (9)	3.15% (9)
Goldman Sachs	3.12% (10)	2.75% (11)
BNP Paribas	2.63% (11)	2.52% (12)
Bank of America	2.41% (12)	3.08% (10)

Defendants' Aggregate Market Share	**83.80%**	**84.25%**

110. Defendants also dominate the U.S. FX spot market. The Federal Reserve Bank of New York reported that as of April 2013, the top ten banks engaged in 98% of all spot volume in the FX market, up from 91% in April 2010. Further reflecting this high degree of concentration, the five largest banks by volume accounted for 80% of spot transactions in the U.S. in April 2013.

111. Only certain banks like Defendants were established as dealers in the spot market. This designation allowed them to participate directly in FX spot trading. Other market participants, referred to as "non-dealers," such as pension funds, hedge funds, fund managers, corporate and private clients, have been required to trade through dealers, that execute each trade in their own name and provide liquidity for other dealers and non-dealers through, *inter alia*, proprietary trading platforms. FX trading platforms are only accessible to dealers. Dealers, like Defendants, were market makers during the Class Period, and they set prices in the market based on such factors as their own market assessment, the volume of their currency positions and risk appetite.

112. Within the limited number of major broker banks, the FX spot market is further controlled by a small and close-knit group of traders employed by Defendants. As a result of market concentration and the global financial crisis that began in 2007, Defendants' FX trading desks underwent staff reductions, resulting in each bank having only between eight to ten traders. These traders have strong ties, formed by, *inter alia*, their long history of working and socializing with one another.

3. Executing FX Spot Transactions

113. During the Class Period, approximately 98% of all FX spot trading occurred in bi-lateral over-the-counter ("OTC") transactions. Parties interested in trading in the FX market typically contact broker banks such as the Defendants to obtain a bid/ask spread, which is supposed to reflect true market conditions at that time. The bid price reflects the price at which the bank is willing to buy the relevant currency and the ask price reflects the price at which the bank is willing to sell the currency. The difference, or spread, between the bid and the ask prices reflects the compensation the broker bank receives for executing the transaction.

114. Entities can also contract to trade certain currencies at FX benchmark rates. To place a benchmark spot order, a customer gives the dealer instructions to buy or sell – and the dealer guarantees execution of – an agreed upon quantity of currency at a fixing rate. The most important FX benchmark rates are those set by WM/Reuters.

115. The WM/Reuters service is a joint venture between the WM Company and Thomson Reuters. WM/Reuters publishes a series of rates for various currency pairs at set times in the day, including on the hour. The WM/Reuters Rates, especially for G10 currencies, provide critical benchmark reference points for establishing the relative values of different currencies and are used in the U.S. and global financial markets by market participants, including Defendants themselves and other banks, asset managers, pension funds and corporations to value their portfolios and transact at a published benchmark rate.

116. The widespread use and acceptance of WM/Reuters rates as a pricing mechanism and as the primary benchmark for currency trading globally has caused the WM/Reuters Closing Spot Rates generally, and the London Fix rates particularly, to occupy a crucial role in the operation of financial markets.

117. In addition to direct communication with traders at broker banks, parties can also execute FX spot trades through electronic communications networks ("ECNs"). ECNs are proprietary computer trading platforms created and operated by broker banks that automatically match buy and sell orders at specific prices.

118. ECN systems collect critical data about FX transactions, including the relevant counterparties, the affected currencies, the size of the transactions, the number of transactions and the actual exchange rates at which the transactions were executed. This information is proprietary to the broker banks that operate the ECN systems, and can provide important inside information to those broker banks regarding FX pricing and market trends and directions. The rise of ECNs has also contributed to the concentration of the FX spot market.

4. The FX Spot Market Is Unregulated and Opaque

119. Notwithstanding its size, importance, and concentration, the FX market is one of the world's least regulated financial markets, with, as noted above, most spot currency trading taking place over-the-counter and away from exchanges. The U.S. does not have any specific rules or agencies governing FX spot trading, although among other industry codes of conduct, the Federal Reserve Bank of New York publishes guidelines known as the "New York Foreign Exchange Committee Guidelines for Foreign Exchange Trading Activities" and the Bank of England maintains a code of conduct known as "The Non-Investment Products Code for Principals and Broking Firms in the Wholesale Markets" or the "NIPs" code. The Bank of England maintains the NIPs code.

120. With respect to obligations of confidence banks owe to clients, the NIPs code provides:

> Confidentiality is essential for the preservation of a reputable and efficient market place. Principals and brokers share equal responsibility for maintaining

> confidentiality. Principals or brokers should not, without explicit permission, disclose or discuss, or apply pressure on others to disclose or discuss, any information relating to specific deals which have been transacted, or are in the process of being arranged, except to or with the parties directly involved (and, if necessary, their advisers) or where this is required by law or to comply with the requirements of a supervisory body. All relevant personnel should be made aware of, and observe, this fundamental principle.

121. There is no centralized exchange or institution that collects and/or posts real-time trade information, such as order flows and volume. Defendants' real-time order flow and volume data – whether reflecting trader or ECN executed transactions – is not available to the market, such as it would be on an exchange, where the entire market knows the volume and prices of trades as they occur. Defendants closely guard this proprietary information and do not make it commercially available, even for purchase. As horizontal competitors, absent an agreement to collude, each bank would not share this client-sensitive, proprietary information with one another. However, as found by global regulators, reflected in recent regulatory settlements and detailed by the allegations contained herein, Defendants did share this confidential information with one another in furtherance of their conspiracy to manipulate FX spot prices and benchmark rates.

D. Defendants Manipulated FX Spot Prices and Benchmark Rates

122. Beginning at least as early as January 1, 2008, Defendants conspired to manipulate FX spot prices and benchmark rates, including the WM/Reuters Rates, in a manner to profit their own trading books. This active manipulation was principally directed in connection with the setting of the 4:00 p.m. London Fix. In executing this manipulation, Defendants communicated and colluded with one another, including via voice trading operations, chat rooms, electronic messaging, and email. Based, *inter alia*, on the shared confidential information, Defendants were able to develop and execute trading strategies designed to

manipulate, and which actually did manipulate, spot prices and benchmark rates for selected currencies, which had the effect of manipulating FX Futures trading prices of those currencies, in violation of the Commodity Exchange Act and antitrust laws.

1. The Importance of the London Fix

123. As discussed above, the London Fix rates are the primary benchmark for global FX rates. The London Fix rates serve a crucial role in the operation of worldwide financial markets and are the most widely referenced FX benchmark rates in the U.S. and globally. The London Fix has become the standard for the closing spot rates for major currency pairs.

124. WM/Reuters provides spot fix rates for 160 currencies. For 21 major currencies, known as "Trade Currencies" (which include all of the G10 currencies), the London Fix rates are calculated using the median of a snapshot of bid and ask order rates and actual spot transactions over the 60 second fix period around 4:00 p.m. London time. The WM/Reuters Rates, including London Fix rates, are published to the market shortly after they are calculated.

125. The WM/Reuters Rates are sourced from what are assumed to be *bona fide* arm's length transactional trade and order prices obtained from liquid platforms, including Thomson Reuters Dealing 3000, Electronic Brokerage Service ("EBS"), and Currenex. Because WM/Reuters Rates are based on the median value of the transactions, they do not take the notional size of the quotes and transactions into account; all quotes and transactions are weighted equally. Thus, ten $1 trades executed in succession could have a significantly greater impact on prices than one $10 trade.

2. WM/Reuters Closing Spot Rates Are Vulnerable to Collusion

126. Defendants understood that the methodology used to calculate the WM/Reuters Rates is vulnerable to manipulation. For example, in a July 4, 2008 meeting of the Bank of

England's Foreign Exchange Joint Standing Committee, Chief Dealers Sub Group,[5] the WM Company gave a presentation on the median calculation of the WM/Reuters rates to chief currency traders from RBS, HSBC, Deutsche Bank, Morgan Stanley, J.P. Morgan, and Citigroup. In response to this presentation, the chief dealers in attendance admitted that the methodology was susceptible to manipulation:

> It was noted that WM/Reuters do not use traded volumes data in the calculation of the spot rates. While they have access to Reuters volume data, the same is not the case for EBS data. The Chief Dealer group agreed that actual traded volumes is a key consideration in the calculation of accurate fixings and suggested that this would be a useful next step in the development of WM/Reuters' model. Furthermore it was suggested that using a snapshot of the market may be problematic, as it could be subject to manipulation. Perhaps WM could use a window of observations, and determine at what point to fix using volume data.[6]

127. At the time of the meeting, Defendants had already seized on these weaknesses in the methodology for calculating the WM/Reuters Rates, and were actively colluding to manipulate FX spot prices and the WM/Reuters Rates.

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[5] The Chief Dealers Sub Group of the Bank of England's Foreign Exchange Joint Standing Committee was established in 2005 for the purpose of facilitating discussions between chief dealers at major dealer banks and Bank of England staff concerning developments in the foreign exchange markets. The Chief Dealers Sub Group consists of 11 chief traders active in the London FX market and top Bank of England officials. The Chief Dealers Sub Group meets three to four times per year. Between 2005 and 2013, representatives from Defendants Barclays (2005-2012), Merrill Lynch (Bank of America) (2006-2007), HSBC (2007-2013), J.P. Morgan (2007-2009, 2011-2013), Morgan Stanley (2005-2008, 2010-2011), Goldman Sachs (2009-2013), BNP Paribas (2009-2013), Deutsche Bank (2005-2012), RBS (2005-2013), UBS (2005-2013), Credit Suisse (2005-2008), and Citigroup (2005-2013), participated in the Chief Dealers Sub Group. Foreign Exchange Joint Standing Committee Chief Dealers' Sub Group Meeting Minutes, 2005-2013 (available at http://bit.ly/1eMBcAq and http://bit.ly/1kDSdSj).

[6] Foreign Exchange Joint Standing Committee Chief Dealers Sub Group, Draft Minutes of the 4 July 2008 Meeting at HSBC, 8 Canada Square, London E14 5HQ (available at http://bit.ly/1eMBcAq), at 71.

3. Defendants Used Electronic Communications, including Chat Rooms, Instant Messages, and Emails, to Conspire and Manipulate Prices

128. Throughout the Class Period, Defendants' FX traders used, *inter alia*, electronic communications – including instant messages, and email and chat rooms with such brazen names as "The Cartel," "The Bandits' Club," "The Mafia," "the players," "the 3 musketeers," "a co-operative," the "A Team" and "One Team, One Dream" – to collude, allowing the active exchange of confidential client and bank trading information in order to manipulate FX prices. Entry into these chat rooms – often by invitation only – was highly coveted among traders because of the critical information revealed among its members.

129. These modern-day electronic chat rooms have thus replaced the classic, smoke-filled backrooms of the past. For example, FINMA found in its investigation that the emergence of online chat rooms changed the behavior of FX traders, as more and more information was exchanged through restricted chat groups, both internally within the banks, as well as with third parties at other banks. FINMA also found that "multilateral communications in groups" significantly increased the quantity and quality of information exchanged through chats about trades and details on client order books and other banks.

130. Defendants set up permanent as well as *ad hoc* chat groups, with agreements for "[l]oyalty to the group," where mutual trust was essential among participants. For example, the CFTC settlement with Citibank quoted excerpts from a chat room regarding whether to allow a new trader to join. Following a discussion as to whether this new trader would "add huge value to this cartel," the members agreed to grant the new trader a one month trial period, with a Citibank trader warning the new member "mess this up and sleep with one eye open at night."

131. Defendants' top-level traders ran the chat rooms. For example, Richard Usher ran The Cartel while he was J.P. Morgan's chief currency dealer in London and head of spot trading

for G10 currencies from 2010-2013. The Cartel's membership numbered a half-dozen or more of Defendants' other top traders, including:

- Rohan Ramchandani, Citibank's head of spot trading in London;
- Matt Gardiner, Barclays' director of spot trading for EUR/USD from 2007 to 2011;
- Chris Ashton, former head of Barclays voice spot trading globally; and
- Niall O'Riordan, UBS's co-global head of G10 and emerging market spot trading.

132. Certain chat rooms were established to focus on manipulating a particular currency pair. For instance, Defendants formed "The Sterling Lads" to manipulate the exchange rate between British pounds sterling and U.S. Dollars, the world's third most-traded currency pair.

133. As a direct result of the numerous government investigations, Defendants Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, J.P. Morgan, Morgan Stanley, RBS, and UBS now ban their traders from participating in multibank chat rooms.

4. Defendants Shared Confidential Customer Order Information to Manipulate FX Spot and Benchmark Rates

134. Limited examples of excerpts of transcripts of trader chat rooms, which were made publicly available for the first time by the recent government settlements, are replete with explicit communications and agreements to manipulate FX spot currency and benchmark rates in a way that was intended to benefit the conspirators, to the disadvantage of clients and the market.

135. As detailed below (*see* Section IV.E), according to, *inter alia*, the regulatory settlements to date, Defendants routinely aggregated their client orders to determine what their individual net positions in specific currencies were going to be at, for example, the London Fix.

It was Defendants' common practice to then share this critical information with one another to determine aggregate net positions in those currencies at the fix.

136. Prior to the announcement of the regulatory settlements, Defendants produced evidence to government investigators confirming that their traders "inappropriately share[d] market-sensitive information with rivals." This evidence confirmed that "[s]hortly before the fix . . . it was common for a group of senior currency traders to discuss with their competitors the types and volume of trades they planned to place." A transcript provided by RBS to the UK FCA revealed, for example, that J.P. Morgan's Richard Usher wrote "messages to traders at other firms [that] included details of his trading positions." Defendants' traders confirmed that "chatroom discussions between rival traders . . . allowed them to share information about pricing and order books."

137. Separately, a number of Defendants had admitted to the Bank of England that they shared their confidential customer information. On April 23, 2012, the Foreign Exchange Joint Standing Committee, Chief Dealers Sub Group met at BNP Paribas' London office. Citibank's Rohan Ramchandani, who was one of The Cartel members, was present. James Pearson (RBS), and Martin Millet (Bank of England) were also present. A person familiar with the UK FCA's investigation disclosed to the media that a senior trader present at the meeting turned over his meeting notes. According to the notes, the traders told Bank of England officials that they shared information about customer orders before currency benchmarks were set. The official meeting minutes concealed the admissions made at the meeting.[7]

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[7] Foreign Exchange Joint Standing Committee Chief Dealers, Minutes of the 23 April 2012 12pm Meeting at BNP Paribas, 10 Hareware Avenue, London, NW1 6AA (available at http://bit.ly/1kDSdSj).

138. By sharing their client trading positions, Defendants gained an understanding of the overall order flows across the FX spot market for relevant currencies, allowing them to determine, in advance, which way they could move market prices. According to traders, banks "would share details of orders with brokers and counterparts at banks through instant messages to align their strategies" and "improve their chances of getting the desired move in the benchmark."

139. Former and current FX spot traders and persons familiar with the government and internal bank investigations have revealed some details of how Defendants colluded to manipulate benchmark rates such as the London Fix. Defendants' tactics included "front running/trading ahead," "banging the close," and "painting the screen."

140. Traders "front run" on customer information when they receive customer orders that could move the market and then trade their own proprietary positions prior to executing their customers' market-moving trades. Large client orders come from, for example, tracker funds, which typically place orders as much as an hour before key benchmark rates – primarily the London Fix rates – are set. Such an order gives traders information about the direction the market will likely move, and traders from the largest dealer banks have admitted that they use the information to take positions that benefit the bank – to the detriment of the customer.

141. According to a former trader, even one large transaction can move the market. The trader stated:

> [I]f he received an order at 3:30 p.m. to sell 1 billion Euros ($1.37 billion) in exchange for Swiss francs at the 4 p.m. fix, he would have two objectives: to sell his own euros at the highest price and also to move the rate lower so that at 4 p.m. he could buy the currency from his client at a lower price.
>
> He would profit from the difference between the reference rate and the higher price at which he sold his own euros. A move in the benchmark rate of 2 basis points [0.02 percent], would be worth 200,000 francs ($216,000).

142. Nevertheless, absent collusion, a bank "front running" the market would still face risk that another bank with a larger position could trade in the same currency, but in the opposite direction at the same time. If this were to happen, the first bank's strategy would backfire, and it would, in industry parlance, get "run over." For instance, if in the above example, the trader decided to sell 1 billion euros in exchange for Swiss francs, but another market participant traded the opposite direction and sold Swiss francs for 2 billion euros, the market price would move higher, not lower, as the first trader had anticipated based on his client's order. If, as a consequence, the market moved 2 basis points higher, the trader would lose 200,000 francs ($216,000) on the transaction.

143. To avoid this risk, Defendants agreed to "front run" together by "improperly working as a pack" and agreeing "to a sequence for placing their own trades to their advantage."

144. Defendants also engaged in "banging the close" to manipulate FX spot prices and benchmark rates. "Banging the close" occurs when traders break up large customer orders into small trades and concentrate the trades before and during the 60-second fixing window in order to intentionally spike the published rates up or down. Because WM/Reuters Rates, such as the London Fix, are based on the median of trades during the calculation window and not weighted for the average notional amount of a transaction, the rates are susceptible to manipulation by banging the close. That is, 100 trades of $1 can impact the WM/Reuters Closing Spot Rates to a greater degree than a single trade of $100.

145. As explained by *Blooomberg*:

> To maximize profits, dealers would buy or sell client orders in installments during the 60-second window to exert the most pressure possible on the published rate, three traders said. Because the benchmark is based on the median of transactions during the period, placing a number of smaller trades could have a greater impact than one big deal, one dealer said.

146. Defendants also manipulated FX spot prices and FX benchmark rates by "painting the screen." Painting the screen occurs when Defendants place phony orders with one another to create the illusion of trading activity in a given direction in order to move rates prior to the fixing window. After the London Fix rates were calculated, Defendants then reversed those trades.

147. Thus, by agreeing in chat rooms and instant messages to, among other practices, "front run" the execution of customer orders, "bang the close," and "paint the screen," Defendants manipulated FX currency spot prices and benchmark rates, which, as detailed above, had the immediate, direct, substantially certain and foreseeable effect of also manipulating prices of FX Futures.

148. Defendants' sharing of their confidential customer information violates the Federal Reserve Bank of New York's "Guidelines for Foreign Exchange Trading Activities," which have been in place for decades. Specifically, the Guidelines note:

> Confidentiality and customer anonymity are essential to the operation of a professional foreign exchange market. Market participants and their customers expect that their interests and activity will be known only by the other party to the transaction . . . and an intermediary, if one is used.
>
> ***It is inappropriate to disclose, or to request others to disclose, proprietary information relating to a customer's involvement in a transaction*** . . .[8]
>
> * * *
>
> Customer anonymity should not be circumvented with the use of slang or pseudonyms. If confidentiality is broken, management must act promptly to correct the conditions that allowed the event to occur…. ***Staff should not pass on confidential and nonpublic information outside of their institution. Such information includes discussions with unrelated parties concerning their trades, their trading positions, or the firm's position.*** It is also inappropriate to disclose,

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[8] Federal Reserve Bank of New York, Guidelines for Foreign Exchange Trading Activities, Foreign Exchange Committee (May 2008) (available at http://bit.ly/1o5okiz), at 11 (emphasis added).

or to request others to disclose, information relating to a counterparty's involvement in a transaction . . . .

Trading room staff should take special precautions to avoid situations involving or appearing to involve trading on nonpublic information.[9]

5. Suspended and Terminated Employees

149. In March 2014, the Bank of England suspended its chief currency dealer Martin Mallet, and launched an internal investigation into whether employees knew about or condoned manipulation of the FX spot prices in connection with the London Fix. The Bank of England's investigation has included the search and review of 15,000 emails, 21,000 Bloomberg and Reuters chat room transcripts, and more than 40 hours of telephone records. After 30 years working at the Bank, following a disciplinary proceeding, Mallet was fired in November 2014 for serious misconduct after failing to follow internal policies.

150. In addition, at least four chief traders who participated in the Bank of England's Chief Dealers Sub Group have been suspended or terminated by their institutions:

- Richard Usher (J.P. Morgan) was placed on leave in October 2013, and left the bank in November 2014.
- Rohan Ramchandani (Citibank) was placed on leave in October 2013 and then terminated in January 2014.
- Robert de Groot (global head of spot trading at BNP Paribas) was suspended in March 2014.
- Niall O'Riordan (UBS) was suspended in October 2013.

151. According to a *The Wall Street Journal* ("*WSJ*") article dated October 6, 2014, as of that time, banks had fired or suspended about 30 employees "linked to the currency investigation." The *WSJ* further reported that banks that had agreed to settle with the FCA "were

[9] *Id.* at 26 (emphasis added).

not necessarily the most culpable, but rather the ones most willing to reach a settlement." Suspended and/or terminated bank employees to date include:

a. Bank of America

152. Bank of America has suspended or terminated at least one employee. In March 2014, Bank of America suspended Joseph Landes, its head of spot FX trading in Europe, the Middle East, and Africa.

b. Barclays

153. Barclays has suspended or terminated at least six employees, including its chief currency trader in London, and has hired criminal-defense lawyers to represent some of their employees. The suspended individuals include London-based Chris Ashton, who oversaw Barclays' voice-spot trading, London-based FX spot trader Mark Clark, Tokyo-based FX spot trader Jack Murray, New York-based FX spot traders Russell Katz and Jerry Urwin, and at least one unknown Barclays' employee. Mr. Ashton was part of The Cartel chat room.

c. BNP Paribas

154. As noted above, BNP Paribas has suspended or terminated at least one employee, Robert de Groot, a spot FX trader in BNP Paribas' London branch, who was also a member of the Bank of England's Chief Dealers' Sub Group. Prior to working at BNP Paribas, Mr. de Groot worked for Citigroup as the chief dealer of Citibank's spot FX trading, and he reported to Jeff Feig, global head of G10 FX trading in New York. He also was Rohan Ramchandani's boss at Citibank, where Mr. Ramchandani succeeded him as the head trader after Mr. de Groot left to work at BNP Paribas in 2010.

d. Citigroup

155. Citigroup has suspended or terminated at least three employees. Citigroup suspended Anthony John, a sterling trader in London, and Andrew Amantia, a Canadian dollar trader in New York. As noted above, Citigroup also fired Rohan Ramchandani, who was head of European spot trading and was a member of the Bank of England's Chief Dealers' Sub Group. In addition, on February 5, 2014, *Bloomberg* reported that Citigroup's foreign-exchange head Anil Prasad will leave the bank to "pursue other interests."

e. Credit Suisse

156. In May 2014, Credit Suisse made sweeping changes to its FX trading personnel, without indicating that the layoffs and restructuring were related in any way to ongoing investigations into FX manipulation. Credit Suisse indicated only that the changes were in connection with cost-cutting measures. Credit Suisse scaled back its FX operations, offering "redundancy packages" to six employees in New York and London, including Daniel Wise, the head of spot trading in London; Mark Astley, a director in FX strategy; Monika Dasani, a London-based sales person who worked with hedge funds; and Martin Amann, a New York-based director of hedge fund FX sales. Prior to offering redundancy packages, on September 10, 2013, Todd Sandoz, head of global FX and short-term interest rate trading at Credit Suisse since May 2011, left the bank after more than 17 years. Mr. Sandoz was a managing director of Credit Suisse in the Investment Banking division, based in London.

157. Mr. Sandoz was registered with the FCA as having investment adviser and management positions with Credit Suisse International, Credit Suisse AG and Credit Suisse Securities (Europe) Ltd. He also was registered with FINRA as working for Credit Suisse Securities (USA) LLC from 1997 through February 2014. Mr. Sandoz held positions such as

Co-Global Head of Global Currencies and Emerging Markets Group, which in 2011 combined Credit Suisse's FX and emerging markets fixed-income divisions. Mr. Sandoz also was a member of the Investment Bank's Principal Risk Committee. Mr. Wise joined Credit Suisse in 2011 from Barclays, and Mr. Astley had recently joined Credit Suisse after almost 20 years at Bank of England. Mr. Wise was part of the Bank of England's group of chief dealers from banks in London, and he was registered with the FCA as working at Barclays from November 2011 through May 2011, and then from August 2011 through September 2014, at Credit Suisse AG, Credit Suisse International and Credit Suisse Securities (Europe) Ltd. Ms. Dasani was similarly registered at all three Credit Suisse affiliates. Martin Amann is registered with FINRA, which shows his affiliation in New York with Credit Suisse Securities from October 2008 through July or August 2014.

f. Deutsche Bank

158. Deutsche Bank has suspended or terminated at least five employees. In February 2014, Deutsche Bank fired three New York-based currency traders, Diego Moraiz, Robert Wallden, and Christopher Fahy, and one Argentina-based currency trader, Ezequiel Starobinsky. Mr. Moraiz was the head of Deutsche Bank's emerging markets FX trading desk and specialized in trading the Mexican Peso. Mr. Wallden and Mr. Fahy were both directors in the FX trading unit. On March 11, 2014, Christian Binaghi, a New York-based managing director and head of Latin America trading, left the firm. In addition, on March 31, 2014, London-based Kai Lew, a director of institutional FX sales, was suspended following an internal investigation.

g. Goldman Sachs

159. Three senior currency trading executives left the bank in 2014. In February, New-York based Steven Cho, global head of spot and forward foreign exchange trading for G10

currencies at Goldman Sachs left the bank. Mr. Cho was a member of the FX committee sponsored by the Federal Reserve Bank of New York. Leland Lim, another partner in Goldman Sachs' currency-trading business, also left the bank. Mr. Lim was co-head of macro trading, which includes interest-rates and currencies, for Asia, excluding Japan. In addition, in September, Mitesh Parikh, Goldman's European head of spot foreign exchange trading left the bank.

h. HSBC

160. HSBC has suspended or terminated at least two employees. In January 2014, HSBC suspended Serge Sarramegna, the bank's chief trader for G10 currencies and head of HSBC's spot FX desk in London, and Edward Pinto, a Scandinavian currency trader based in London.

i. J.P. Morgan

161. As noted above, J.P. Morgan suspended or terminated Richard Usher, who was a member of the Bank of England's Chief Dealers' Subgroup. In addition, in January 2014, the bank suspended Gordon Andrews, a currency trader, after allegedly finding evidence that he disclosed trade information to employees at other banks.

j. Morgan Stanley

162. On March 21, 2014, Steve Glynn, co-head of foreign exchange and emerging markets and head of fixed income for Asia at Morgan Stanley, left the bank. Glynn had been at Morgan Stanley for 14 years, initially in London before moving to Hong Kong in 2009. In addition, in August 2014, Stuart Sopp resigned from his position as the G10 FX head, after five years with the bank.

k. RBS

163. In December 2014, RBS stated that six employees had been placed into a disciplinary process, three of whom had been suspended: two London-based FX spot traders, Julian Munson and Paul Nash, and a senior spot currency trader based in London, Ian Drysdale. In December 2014, Mr. Nash was arrested and criminally charged by authorities as part of the UK Serious Fraud Office's FX manipulation investigation.

l. UBS

164. UBS has suspended or terminated at least nine employees and has hired criminal defense lawyers to represent some of their employees. UBS suspended Roger Boehler and, as noted above, Niall O'Riordan. Both had been at UBS since the early 1990s. Mr. Boehler was the global head of FX trading at UBS's investment bank, based in Stamford, Connecticut. Mr. O'Riordan was a member of the Bank of England's Chief Dealers' Subgroup. On March 28, 2014, UBS suspended seven FX traders, including New-York based emerging markets spot trader Onur Sert, 20-year UBS currency trader Michael Velardi, and five other global traders.

165. In addition, former UBS senior FX trader Matt Gardiner was placed on leave by his current employer, Standard Chartered PLC, where he is the assistant chief dealer in G10 foreign exchange. Mr. Gardiner was part of The Cartel chat room. Mr. Gardiner worked at UBS for two years prior to joining Standard Chartered and prior to UBS, Mr. Gardiner worked at Barclays from June 2007 to July 2011, where he was a director in FX spot trading responsible for EUR/USD.

E. Defendants' Longstanding Collusion Has Incited Government Investigations, Settlements and Disciplinary Action

166. Governmental and regulatory authorities in the U.S., United Kingdom, European Union, Switzerland, Germany, Asia, Australia, New Zealand, and the international Financial

Stability Board launched investigations into Defendants' manipulative conduct in the FX market. As a result of these investigations, certain government regulators have so far settled with six of the Defendant banks – BofA, Citibank, HSBC, J.P. Morgan, UBS and RBS.

167. Regulators identified certain conduct followed by FX traders in support of their market manipulation:

- Netting off orders with traders outside the chat room in order to reduce the volume of orders held by third parties that might otherwise be transacted at the fix in the opposite of the desired direct – known by traders as "taking out the filth" or "clearing the decks."
- Transferring orders to a single trader within the chat room thereby consolidating these orders in the hands of one trader, a practice referred to by traders as "giving you the ammo". As the FCA found, "This potentially increased the likelihood of successfully manipulating the fix rate since that trader could exercise greater control over his trading strategy during the fix than a number of traders acting separately."
- Transacting with traders outside of the chat room in order to increase the volume of orders held by them in the direction favored by the chat room members, a process known as "building."

168. Regulators also found that traders increased the volume traded by them at the fix in the desired direction in excess of the volume necessary to manage the risk associated with the firms' net buy or sell orders at the fix, a process known within the market "overbuying" or "overselling."

169. The FCA described the impact of this conduct as follows:

> The effect of these actions was to increase the influence that those traders had with regard to the forthcoming fix and therefore the likelihood of them being able to manipulate the rate in the desired direction. The trader(s) concerned then traded in an attempt to move the fix rate in the desired direction.

See, e.g., FCA Citibank Final Notice at p. 17.

1. The CFTC Settlements against Citibank, HSBC, J.P. Morgan, RBS and UBS

170. On November 11, 2014, the CFTC entered into five separate Orders Instituting Proceedings against Defendants Citibank, HSBC, J.P. Morgan, RBS and UBS, finding that each violated Sections 6(c), 6(d) and 9(a)(2) of the CEA, as well as Regulation 180.2, 17 C.F.R. 180.2, for conduct occurring on or after August 15, 2011.[10] The CFTC in its Orders stated that it has reason to believe that Citibank, RBS and UBS each violated the CEA from 2009 through 2012 that HSBC did so from 2009 through mid-2012 and that J.P. Morgan did so from 2010 through 2012.

171. Among other things, the CFTC found that these banks attempted to manipulate and aided and abetted other banks in their attempts to manipulate the WM/Reuters Rates and other benchmark rates, by and through certain of their FX traders, who sought to benefit their banks' own trading positions, or the positions of traders at other banks.

172. In connection with its proceedings and settlements, the CFTC published transcripts of examples of misconduct and chat room "conversations" between and among traders at Citibank, HSBC, JP Morgan, RBS and UBS. The CFTC disclosed sufficient information to identify each of these banks in excerpts of transcripts of group chats, and described in various settlement agreements HSBC as "Bank U", RBS as "Bank V", Citibank as "Bank X", J.P. Morgan as "Bank Y" and UBS as "Bank Z". The CFTC has not disclosed sufficient information to determine which other banks are code named as Bank N, Bank P, Bank

[10] According to the CFTC:

> Commission Regulation 180.2, 17 C.F.R. §180.2 (2014), which became effective on August 15, 2011, in relevant part, makes it "unlawful . . . directly or indirectly . . . to attempt to manipulate, the price of . . . any commodity in interstate commerce." Regulation 180.2 codifies Section 6(c)(3).

R, Bank S, Bank T or Bank W in the transcripts released in connection with the Citibank, HSBC, JP Morgan, RBS and UBS settlements discussed separately below.

173. The CFTC tied the five banks' unlawful conduct to, *inter alia*, an increase in market participants' desire to exchange currencies following the onset of the global financial crisis in late 2007. The resulting increase in liquidity and volume in the FX market provided an opportunity for FX traders at these and other banks to take advantage of trading opportunities, specifically around the setting of FX benchmark rates. To accomplish this, the CFTC found that FX spot traders seized the opportunity to use and develop relationships with traders at other banks to communicate and share information in order to coordinate attempts to manipulate certain FX benchmark rates, including the London Fix.

174. In the Orders for each of the banks, the CFTC found that:

> Certain FX traders at [each of the named banks] regularly participated in numerous private chat rooms. At times, in certain chat rooms, FX traders at [each bank] and other banks disclosed confidential customer order information and trading positions, altered trading positions to accommodate the interests of the collective group, and agreed on trading strategies as part of an effort by the group to attempt to manipulate certain FX benchmark rates, in some cases downward and in some cases upward.

175. The CFTC's Orders for each bank also provide details regarding exclusive, invitation only chat rooms through which the banks' FX traders exchanged information related to the size and direction of net orders with FX traders at other banks and obtained and used this information to enable efforts to manipulate FX benchmark rates prior to or during relevant fixing periods.

176. The CFTC further found that each bank was liable for the acts, omissions and failures of its traders engaging in the unlawful FX manipulation, including each bank's G10 FX spot traders' attempts to manipulate FX benchmark rates. Each bank's FX traders conspired

with other banks' FX traders and used private electronic chat rooms to communicate and plan their efforts to manipulate the FX benchmark rates, involving multiple currencies.

a. Citibank

177. The limited examples of the chat room banter quoted in the CFTC's Citibank Order highlighted the conspirators' concerns to protect cartel members and ensure that any new member invited to join the chat room "agreed to put the interests of the group first." Some of the chat room banter quoted in the CFTC's Order instituting proceedings against Citibank exposes the Citibank, JP Morgan and UBS traders' combined efforts in December 2011 to ensure that a proposed new member of the chat room group, Chris Aston – the then head of voice spot trading at Barclays, "agreed to put the interests of the group first."

178. Citibank's then European head of spot trading, Rohan Ramchandani, chatted with Matt Gardiner, a UBS trader, and Richard Usher, J.P. Morgan's then chief currency dealer in London, and Mr. Ramchandani referred to market participants outside the chat room group as the "other numpty's" in the market, and questioned whether a new member "protect us…like we protect each other" and if he (Mr. Aston) would "add huge value to this cartel." Mr. Aston joined the cartel and participated in the manipulation of FX prices and restraint of trade until August 2012, when he ceased to be a member, which not coincidentally was within months after Barclays settled criminal and civil actions over its LIBOR interbank lending rate rigging.

179. The CFTC found that Citibank's FX traders' misconduct occurred over the course of 2009 through 2012, without detection by Citibank because of lax internal controls over the use of electronic chat rooms, as well as supervisory failures. Specifically, the CFTC found that Citibank "failed to adequately assess the risks associated with its participation in the fixing of certain FX benchmark rates, including the 4 p.m. WM/R benchmark rates."

180. The CFTC Order sets out an example of Citibank FX traders' manipulative conduct which involved an attempt to coordinate with a trader at J.P. Morgan to "manipulate the EUR/USD fix just ahead of the 4 p.m. fix." In this example, the traders engaged in a rapid series of electronic chat messages from 3:51 to 3:53 London time, agreeing to coordinate manipulative and anticompetitive trading of Euros at the London Fix (*see* ¶ 203 below for a transcript of this chat room conversation).

181. Another example in the CFTC's Order exposed a Citibank FX trader's ("Bank X Trader" below) coordination with traders from J.P. Morgan ("Bank Y Trader" below), UBS ("Bank Z Trader" below) and another bank ("Bank W Trader" below) to "match off" in the EUR/USD fix, and to coordinate to manipulate the USD/CHF fix. The CFTC noted that the fix discussions began at 3:16 p.m. (in advance of the London Fix) on the particular day, with traders sharing position information for several currencies, including EUR, AUD, JPY and CHF. According to the CFTC, between 3:31 and 3:40, the chat room participants matched off their AUD positions so that they were "all good," and then turned their attention to other currency pairs:

Bank X Trader:	3:53:35	can anyone help in chf fix
	3:53:38	i lose 130 total
Bank Y Trader:	3:53:46	arb it for more ammo
Bank X Trader:	3:53:55	[Bank Z trader] ur guy want it?
Bank Z Trader:	3:54:09	nope he's flatish i think
Bank W Trader:	3:54:16	buy the eurchf and les hammer eur
	3:54:18	come on
Bank Y Trader:	3:54:29	[Bank X trader] ill do it of u want
	3:54:33	ive nothing else to do…
Bank X Trader:	3:54:53	ok 130 usdchf mine
Bank Y Trader:	3:54:57	ok 130 u buy

182. Having offset their CHF positions, the traders turned their attention to the EUR in the remaining minutes before the fix:

Bank Y Trader:	3:55:01	u want small eurusd?
Bank W Trader:	3:55:19	so [Bank Z trader] u get eur now?
Bank Z Trader:	3:56:00	checkin
Bank Y Trader:	3:56:04	right who wants 40 eur
Bank Z Trader:	3:56:06	sub 30
Bank Y Trader:	3:57:53	gd lk fellas

183. The CFTC reported that in another chat, traders from three other banks, including J.P. Morgan and Citibank, exchanged positions leading into the WM/Reuters 4:00 p.m. fix. According to the transcripts released by the CFTC, J.P. Morgan's trader said "it cant be a good day to be [right hand side]." Once the four traders determined they were all the same direction, the Bank W trader asked if "we gonna be able to get it to 05" to which the J.P. Morgan trader responded "is that the troyal fkn we." After the fixing window closed the Citibank trader said "nice call" and the chat room members gave their "scores" or profits from the fix. According to the CFTC, the chat room members each claimed they made between $60,000 and $220,000.

184. The CFTC's Order noted that in early 2013, Citibank banned multi-bank chat rooms for its FX personnel, but did not commence any internal investigation of possible misconduct by its FX traders relating to FX benchmarks until mid-2013.

185. In connection with the Order, the CFTC imposed a penalty of $310 million on Citibank and required it to implement numerous remedial steps to stop the manipulative conduct at the bank going forward.

b. HSBC

186. The CFTC determined that two traders on HSBC's G10 FX trading desk were primary participants in HSBC's manipulative conduct. The CFTC further found that HSBC's FX traders' misconduct occurred, without detection by HSBC, because of lax internal controls over the use of electronic chat rooms, as well as supervisory failures. Specifically, the CFTC

found that "HSBC failed to adequately assess the risks associated with its participation in the fixing of the WM/R benchmark rates and certain other FX benchmark rates."

187. The CFTC's findings include excerpts from chat room discussions by HSBC's G10 FX traders, in which they participated with traders at other banks in efforts to manipulate FX spot prices and benchmark rates. HSBC's traders often had multiple chat rooms open simultaneously on their trading terminal, with particular currency pairs being the focus of certain chat rooms.

188. An example of HSBC's FX spot traders' collusive misconduct set out in the CFTC Order reflects a series of chats among HSBC's G10 FX traders and three traders at other banks during which they revealed that they were net sellers of GBP/USD currency pairs, referred to as "cable" from a bygone era in which GBP/USD currency exchanges were sent by cable communications. After HSBC's trader discloses in one chat room at 2:50 p.m. that he is a net seller (lhs)[11] in cable for the upcoming fix at 4 p.m. the same day, other members of the chat room disclosed each of their similar net seller positions, and the HSBC trader ("Bank U Trader" below) stated that the team could "whack" the fix by getting a few more trades the "same way". The CFTC provides specific details and time stamps of the chats, including as follows:

Bank W Trader 1:	2:50:21 pm:	early days but im a seller cable at fix [. . .]
Bank S Trader:	3:11:43 pm:	here also
Bank R Trader:	3:24:50 pm:	u got much to do in fix [Bank W Trader]
Bank W Trader 1:	3:25:07 pm:	im seller 130 cable that it [. . .]
Bank W Trader 1:	3:28:02 pm:	hopefulyl a fe wmore get same way and we can team whack it
Bank R Trader:	3:28:17 pm:	ill do some digging [. . .]
Bank W Trader 1:	3:36:13 pm:	im seller 170 gbp atmofix
Bank R Trader:	3:36:26 pm:	we sellers of 40
Bank U Trader:	3:38:26 pm:	lhs in cable at the fix

[11] If an FX trader has orders to sell off the first currency listed in any currency pair, it is often referred to as being on the left-hand side, or "lhs." If an FX trader references right hand side, or "rhs," it indicates that the FX trader is a buyer of the first currency listed in a currency pair.

Bank U Trader: 3:38:29 pm: good amount

189. As the 4 p.m. fix period closed, the participants in the chartroom cheered each other with "nice team work," "well done" and "nice one mate" in recognition of their successful manipulation of the fix.

190. At the same time the above manipulation was occurring, in two other chat rooms, the HSBC trader communicated with other banks' traders prior to the close of the fix period, disclosing that he "has a net sell order of approximately 400 million cable at the fix." In one chat room, between 3:25 p.m. and 3:36 p.m. London time, the HSBC trader alerted other chat room participants to the size of his 400 million net sell order, encouraged other banks' traders to "get lumpy cable at the fix," and then stated "lets go." When the other traders communicated their own net positions, one of the traders then responded "yeah baby." In the second chat room, between 3:28 p.m. and 3:43 p.m., the HSBC trader collaborated with a trader at another bank regarding sales at the fix.

191. Within minutes of setting the 4 p.m. London Fix, the HSBC FX trader congratulated the other chat room traders for their successful manipulation, commenting at 4:03 p.m. in a rapid series of chats: "nice job mate," "haha," "i sold a lot up there," "oversold by 100" and "hahaha". The other traders responded: "sweet nice job," "bravo," "v nice mate" and "big time mate".

192. On the same day in a separate private chat room, the HSBC trader ("Bank U Trader" below) engaged in a chat with an RBS trader ("Bank V Trader" below) prior to the close of the London fix period, beginning at 3:28 p.m. and disclosed that he was selling at the fix, as follows:

Bank U Trader: 3:28:45 pm: lhs in about 300 quid cable for the fix
Bank V Trader: 3:28:54 pm: sweet

Bank U Trader:	3:29:42 pm:	can yo do some digging and see if anyone is that way
Bank V Trader:	3:29:52 pm:	of course mate
Bank V Trader:	3:34:49 pm:	im getting 83 at mom mate
Bank U Trader:	3:34:56 pm:	nice […]
Bank V Trader:	3:37:38 pm:	someone tells a guy here he is getting 170 cable at fix
Bank V Trader:	3:43:28 pm:	see that [Bank U Trader]
Bank U Trader:	3:43:57 pm:	thx

193. As the 4 p.m. London fix period ended, the RBS and HSBC traders congratulated each other on successful manipulation of the price at the fix, as quoted by the CFTC in its release of undated transcripts in connection with its enforcement action against HSBC, RBS and other banks:

Bank V Trader:	4:00:51 pm:	have that my son
Bank V Trader:	4:00:52 pm:	hahga
Bank V Trader:	4:00:56 PM:	v nice mate
Bank U Trader:	4:04:53 pm:	that worked nice mate
Bank V Trader:	4:05:44 pm:	big time mate

194. In a fourth chat room, the same HSBC trader disclosed his position with traders at other banks, including UBS, prior to the close of the fix period, and, starting at 3:36 p.m., they shared information about the size and direction of the net GBP orders at the fix period. The HSBC trader disclosed that he was "lhs in cable at the fix" in a "good amount." Within second, a trader from UBS suggested that they get the GBP "cable" up to "60/70 then bash the [ ] out of it" and then, after the close of the fix, commented "nice work gents".

195. The CFTC also commented that the HSBC trader, in addition to and contemporaneously while participating in the 4 separate chat rooms described above, at 3:38 p.m. commented in "three additional chat rooms in which traders from Bank V [RBS], Bank W, and Bank N also participated, that he was 'lhs in cable at the fix' and 'good amount.'"

196. In another example, the CFTC provides excerpts from a private chat room discussion in which a trader from another bank ("Bank W Trader" below) told the HSBC trader ("Bank U Trader" below) that another firm (which was not participating in the group chat) was "building" in the opposite direction to them and would be buying at the fix. The Bank W Trader reported to the HSBC trader that he had taken action to net off against this order, which would be in the opposite direction at the fix than the Bank W trader's and the HSBC trader's positions", and then congratulated each other on the successful manipulation as follows:

Bank W Trader:	3:43:52 pm:	right ive taken him out
Bank W Trader:	3:43:58 pm:	he paid me for 186
Bank U Trader:	3:44:09 pm:	ok thx
Bank W Trader 1:	3:44:15 pm:	so shud have giot rid of main buyer for u
Bank W Trader 1:	3:44:58 pm:	im stilla seller of 90
Bank W Trader 1:	3:45:06 pm:	give us a chance and ive paid a load of bro ha
Bank W Trader 1:	4:05:03 pm:	yeah babyxx
Bank W Trader 1:	4:05:11 pm:	[Bank U Trader] [Bank W Trader 1] combo boom
Bank U Trader:	4:05:22 pm:	loved that mate
Bank U Trader:	4:05:26 pm:	worked lovely
Bank U Trader:	4:05:34 pm:	pity we couldn't get it below the 00

197. In another chat room at 3:54 p.m., the HSBC trader discussed with yet another trader unloading positions just prior to the fix, commenting on the group's decreasing trading positions, including reporting "just sold some more" "down to my last tenner," and congratulating themselves after 4:00 p.m. with such comments as "nice on[e] son," "learnt from a good fella," "there u go" and "go early, move it, hold it, push it.".

198. The CFTC found that the HSBC trader's practice of communicating confidential information, including the size and direction of orders, and soliciting and directing other banks to follow suit was an effort to benefit his trading position "by jointly attempting to manipulate the benchmark exchange rates," and that this conduct continued during 2011 and 2012, until the trader left HSBC in mid-2012. The CFTC also found that at least one other HSBC FX trader

"received or disseminated information in chat rooms which involved confidential size and direction orders and used this information to attempt to manipulate the benchmark exchange rate."

199. In its Order, the CFTC noted that in December 2012, HSBC banned multi-bank chat rooms for its FX personnel, but did not commence any internal investigation of possible misconduct by its FX traders relating to FX benchmarks until mid-2013.

200. In connection with the Order, the CFTC imposed a penalty of $275 million on HSBC and required it to implement numerous remedial steps to stop the manipulative conduct at the bank going forward.

c. J.P. Morgan

201. While working as J.P. Morgan's chief currency dealer in London, Richard Usher operated as a leader of the FX price-fixing cartel. Some of the chat room banter quoted in the CFTC's Order against J.P. Morgan highlighted Usher's and his co-conspirators' concern for secrecy and loyalty to each other. Specifically, the CFTC exposed the J.P. Morgan traders' efforts to ensure that a new member of the chat room "agreed to put the interests of the group first." In the course of that conversation, a Citigroup trader referred to market participants outside the chat room group as the "other numpty's" in the market, and a J.P. Morgan trader observed that he "implicitly" trusted other group members, but questioned a potential new group member's reliability.

202. The CFTC found that J.P Morgan's FX traders' misconduct occurred over the course of 2010 through 2012, without detection by J.P. Morgan, because of lax internal controls over the use of electronic chat rooms, as well as supervisory failures. Specifically, the CFTC

found that J.P. Morgan "failed to adequately assess the risks associated with its participation in the fixing of certain FX benchmark rates, including the 4 p.m. WM/R benchmark rates."

203. An example of J.P. Morgan's FX traders' ("Bank Y Trader" below) manipulative conduct set out in the CFTC Order involved an attempt to coordinate with a trader at Citigroup ("Bank X Trader" below) to "manipulate the EUR/USD fix just ahead of the 4 p.m. fix." These traders engaged in a rapid series of electronic chat messages from 3:51 p.m. to 3:53 p.m. London time, coordinating their manipulative trading of Euros at the London Fix, as follows:

Bank Y Trader:	3:51:21 pm:	ok, I got a lot of euros
Bank X Trader:	3:51:25 pm:	?
	3:51:28 pm:	you selling?
Bank Y Trader:	3:51:30 pm:	yes
Bank X Trader:	3:51:33 pm:	now
	3:51:35 pm:	or pickun?[12]
Bank Y Trader:	3:51:39 pm:	pick un
	3:51:46 pm:	u want it? … [….]
Bank X Trader:	3:52:24 pm:	ill take it [Bank Y Trader]
	3:52:26 pm:	if u don't want it
Bank Y Trader:	3:52:39 pm:	tell you what
	3:52:42 pm:	lets double team it
	3:52:45 pm:	how much u got
Bank X Trader:	3:52:46 pm:	ok
	3:52:47 pm:	300
	3:52:52 pm:	u?
Bank Y Trader:	3:53:01 pm:	ok ill give u 500 more
Bank X Trader:	3:53:05 pm:	wow
	3:53:06 pm:	ok
	3:53:08 pm:	ha
	3:53:09 pm:	cool …[…]
Bank Y Trader:	3:53:20 pm:	so we have 800 each
	3:53:21 pm:	ok
	3:53:31 pm:	but we gotta both do some at fix
	3:53:36 pm:	don't sell em all and take foot off haha
Bank X Trader:	3:53:40 pm:	i promise i will
Bank Y Trader:	3:53:47 pm:	me too

[12] "Pickun" is a slang term for a fix order.

204. At 4:00:14 p.m. the Citibank trader reported that he was "hosed." The J.P. Morgan trader replied with "ditto." Although these traders did not fully accomplish their goals to drive down spot EUR/USD prices, their manipulation at the fix created an artificial price EUR/USD spot and Futures FX prices, driving them down and harming Plaintiffs that sold at artificially suppressed prices.

205. Another example in the CFTC's Order exposed a J.P. Morgan FX trader's coordination with a trader from another bank ("Firm A") to manipulate the EUR/USD. The CFTC noted that these discussions began at 3:43 p.m., in advance of the London Fix. After confirming that both banks had a net buy order for Euros, the J.P. Morgan trader offered to transfer its net buy order to the trader at the other bank. In response, the second trader stated that he would "prefer we join forces." The J.P. Morgan trader enthusiastically responded, "perfick . . . lets do this…lets double team them," to which the other trader answered "YESsssssssss." Following the close of the fixing window, the other trader stated "sml rumour we haven't lost it" to which the J.P. Morgan trader enthusiastically responded "we do dollarrr."

206. The FCA disclosed a chat between Firm A and Firm B, who was a member of the chat room but had not participated in the prior days' discussion:

> The following day, Firm A stated to Firm B "we were EPIC at the [WMR] fix yest". Firm B responded "yeeeeeeeeeeeeeeeeeeeah". Firm A added "i dragged [JPMorgan] in , we covered all the bases b/w us". Firm B commented "so couldnt have been that $hit a week!!"

207. The CFTC's Order noted that in December 2013, J.P. Morgan banned multi-bank chat rooms for its FX personnel after commencing an internal investigation of possible misconduct by its FX traders relating to FX benchmarks in June 2013.

208. In connection with the Order, the CFTC imposed a penalty of $310 million on J.P. Morgan and required it to implement numerous remedial steps to stop the manipulative conduct at the bank going forward.

d. RBS

209. The CFTC found that RBS's FX traders' misconduct occurred over the course of 2009 through 2012, without detection by RBS because of lax internal controls over the use of electronic chat rooms, as well as supervisory failures. Specifically, the CFTC found that RBS "lacked adequate internal controls or procedures to detect and deter possible misconduct involving certain FX benchmark rates," including the WM/Reuters Rates. In particular, the CFTC observed that RBS "failed to adequately supervise its FX traders by, among other shortcomings, failing to have controls and monitoring over the use of electronic chat rooms."

210. One example of RBS's manipulative conduct set out in the CFTC Order involved a RBS trader ("Bank V Trader" below) tipping off other banks that RBS had a client order to sell the GBP/USD currency pair, or "betty", at the WM/Reuters fix. After RBS learned that traders at two other banks, HSBC ("Bank U Trader" below) and UBS ("Bank Z Trader" below) also had orders to sell at the fix, as follows:

Bank V Trader:	15:45:35:	im getting abt 80 quid now….fixing
Bank U Trader:	15:45:54:	my ny 100 quid
Bank V Trader:	15:51:19:	getting more than u now [Bank U Trader] betty
Bank U Trader:	15:51:26:	ok thx
Bank W Trader:	15:52:23:	nice job gents
Bank U Trader:		15:54:16: [Bank V Trader], just matched with [Bank 1] and [Bank 2] for 100, still lsh in about 140
Bank V Trader:	15:54:26:	cool …
Bank Z Trader:	16:00:58:	I don my hat …
Bank V Trader:	16:01:08:	what a job
Bank Z Trader:	16:01:23:	welld one lads
Bank W Trader:	16:01:28:	bravo
Bank V Trader:	16:07:03:	1.6218..nice
Bank U Trader:	16:07:33:	worked ok that one…

211. Another example detailed a RBS FX trader's coordination with a trader from two other banks, ("Bank T Trader" and "Bank P Trader" below), to manipulate the price of Australian Dollars (AUD) and New Zealand Dollars (NZD). In particular, after learning through a chat room at 3:43 p.m. London time that a trader at another bank planned to buy a small amount of Australian Dollars at the fix, the RBS trader ("Bank V Trader" below) revealed that he too was buying AUD at the fix and offered to "do" that trader's AUD trades (which the other trader subsequently agreed to), as follows:

Bank T Trader:	15:43:32:	buying aud and nzd at the fix
Bank V Trader:	15:43:43:	Tkx
Bank T Trader:	15:43:52:	ntg big
Bank V Trader:	15:43:59:	Im buying 50 aud can do yours if you want
Bank T Trader:	15:45:13:	ok … 60 plse … ****
Bank V Trader:	15:45:56:	Great
Bank P Trader:	15:50:00:	I need to buy 25 aud at the fix too...any int? more ammo for you…. ?
Bank V Trader:	15:50:21:	sure [Bank P Trader]
Bank P Trader:	15:51:24:	cool all your [Bank V Trader]
Bank V Trader:	15:51:46:	Buying 220 now
Bank P Trader:	15:51:57:	good luck
Bank T Trader:	15:52:20:	load up your 50 offrs …
Bank P Trader:	15:53:14:	ill do those ones if you want
Bank V Trader:	15:53:19:	haah
Bank T Trader:	15:53:20:	ur fkg [Bank V Trader], ramp it
Bank T Trader:	16:00:41:	nice one *****
Bank P Trader:	16:00:56:	look at you!...-well done mate …

212. The CFTC determined that the traders at the other banks encouraged the RBS trader to "build a larger position" or to "ramp it" prior to the fix.

213. The CFTC's Order noted that in August 2012, RBS restricted the use of multi-bank chart rooms only after receiving a client complaint in October 2010 related to the sharing of order information and receiving internal inquiries in November 2011 about whether it was appropriate to share information with other banks and/or clients.

214. In connection with the Order, the CFTC imposed a penalty of $290 million on RBS and required it to implement numerous remedial steps to stop the manipulative conduct at the bank going forward going forward.

e. UBS

215. The CFTC found that UBS had insufficient risk assessment tools in place, including a lack of sufficient controls to prevent the simultaneous trading of proprietary and client accounts at the same time leading to conflicts of interest, and had an incentive system in place in which a trader could earn compensation for trading which was on average triple the base salary, thereby incentivizing traders to engage in manipulative conduct. Furthermore, no measures were put in place to prevent these inappropriate forms of trading, and desk supervisors ignored the misconduct and/or failed to provide any oversight of the traders in order to prevent the misconduct.

216. The CFTC also found that UBS failed to adequately assess the risks associated with its FX traders participating in the fixing of certain FX benchmark rates, and lacked adequate controls in order to prevent misconduct by its FX traders. These inadequacies included the lack of sufficient policies, procedures and training governing participation in trading around FX benchmark rates.

217. In one example offered by the CFTC, a trader at UBS and another bank "coordinated their trading to attempt to manipulate the WM/R 4 p.m. fix by exchanging their client fixing orders and information relating to the type of clients buying." The CFTC provided the following excerpts from the traders discussions as the 4 p.m. fix approached:

Bank V Trader:	15:57:45	come on [UBS Trader] we can do this
	15:57:50	fix it at 07
UBS Trader:	15:57:54	ha
	15:58:55	keep seeing citi on the bid

16:00:50 nice work

218. In another example, the CFTC quoted traders for UBS and three other banks exchanging positions in a chat room in advance of the London Fix. Once the four traders determined they were all the same direction, one trader asked if "we gonna be able to get it to 05" to which another trader responded "is that the troyal fkn we [sic]." After the fixing window closed the third trader said "nice call," and, according to the CFTC "the chat room members gave their 'scores' or profits from the fix. The chat room members each claimed they made between $60,000 and $220,000."

219. In connection with the Order, the CFTC imposed a penalty of $290 million on UBS and required it to implement numerous remedial steps to stop the manipulative conduct at the bank going forward.

2. The FCA Settlements against Citibank, HSBC, J.P. Morgan, RBS and UBS

220. On November 11, 2014, the FCA entered into Final Notices of settlements of enforcement actions taken against Citibank, HSBC, J.P. Morgan, RBS and UBS in connection with its investigation of the banks' collusion to manipulate FX spot prices and benchmark rates. The FCA found that each bank had violated the FCA's Principles for Businesses in the period from January 1, 2008 to October 15, 2013, and imposed fines totaling £1,114,918,000 ($1.7 billion), which are the largest fines ever imposed by the FCA or its predecessor, the Financial Services Authority.

221. In the Final Notices, the FCA found that each of the banks "over a period of five years failed properly to control its London voice trading operations in the G10 spot FX market," with the result that the banks' FX traders were able to put their interests ahead of clients' and other market participants' interests.

222. The FCA found each bank's failure to control its London voice trading operations in the G10 spot FX market to be "extremely serious," with potentially damaging and far-reaching consequences for the G10 spot FX market and financial markets generally.

223. The FCA Final Notices further determined that G10 FX traders at each of the banks attempted to manipulate the key benchmarks, including WM/Reuters and/or the European Central Bank ("ECB") fix rates, for their own benefit; attempted to trigger clients' stop loss orders for their own benefit and to the detriment of clients and other market participants; and shared confidential client information with traders at other firms, including client identities and order positions and the size and direction of the banks' net orders at a forthcoming fix. These FX traders perpetrated their collusive trading schemes typically through electronic messaging, including chat rooms, with exclusive membership among a close, tight-knit group of G10 spot FX traders at different banks.

224. The FCA found that this collusion "provided these traders with more information than they would otherwise have had about other firms' client order flows and thus the likely direction of the fix;" and that the traders used the information to develop their own trading strategies and to attempt to manipulate the fix in a particular desired direction. The FCA noted that when these banks disclosed client activity, such as FX activity of central banks, large corporations, pension funds and hedge funds, such disclosures were significantly detrimental to the bank's clients.

225. The FCA also announced that its investigation into Barclays' G10 spot FX trading business and wider FX business areas was progressing, and labeled Barclays as one of the six firms where the FCA found the worst misconduct.

226. Specific examples of manipulation of G10 FX spot prices and benchmark rates, as detailed in the individual FCA Final Notices include the following.

a. Citibank

227. The FCA imposed a fine of £225,575,000 ($348.5 million) on Citibank, which was reduced by 30% from £322,250,000 ($497.9 million) because Citibank agreed to settle at an early stage of the FCA's investigation.

228. Specific examples of Citibank's manipulative conduct are set forth in the FCA's Final Notice, including one incident in which Citibank attempted to manipulate the ECB fix in the EUR/USD currency pair. In this example, Citibank had net client buy orders and would profit if it was able to move the ECB rate upwards. To accomplish this desired movement, minutes ahead of the ECB fix, traders at five different banks inappropriately disclosed to each other via chat rooms specific details about their net orders. Citibank's net buy order associated with fix orders for clients was EUR 83 million. However, in order to manipulate the fix, Citibank actively sought to increase the volume of EUR that it would buy for the fix by trading with other firms via chat room agreements and communications. As a result, Citibank was able to build its trading volume to EUR 542 million to buy at the fix, which the FCA found was "well above that necessary to manage Citi's risk associated with net client orders at the fix."

229. To execute this manipulation, Citibank placed four buy orders on the EBS trading platform, each with increasing size and price, artificially moving the price up, to the benefit of the conspirators' buy positions. According to the FCA, Citibank purchased EUR 374 million, which accounted for 73% of all EBS purchases. The FCA found that Citibank's trading on this occasion in EUR/USD generated a profit for Citibank of $99,000.00.

230. As a result of Citibank's manipulation, the ECB published the fix rate for EUR/USD at 1.3222. Chat room traders heralded Citibank's manipulative trading as "impressive", "lovely" and "cnt teach that", to which Citibank's trader modestly responded "yeah worked ok."

231. In its investigation, the FCA also uncovered instances within Citibank's G10 FX spot trading operations of traders engaging in manipulative trades to trigger client stop loss orders at rates higher than Citibank had purchased the currency in the market, thereby profiting, quoting chat room statements such as "had to launch into the 50 offer to get me stop done" and "went for a stop".

232. The FCA found that a client informed Citibank in August 2011 that one of its FX traders inappropriately had shared confidential client information in a chat room with a trader at another firm. Citibank terminated the FX trader's employment, but failed to respond adequately to known risks of traders sharing confidential client information in chat rooms, as highlighted by the incident.

b. HSBC

233. The FCA imposed on HSBC a fine of £216,363,000 ($334.3 million), which was reduced by 30% from £309,090,000 ($477.6 million) because HSBC agreed to settle at an early stage of the FCA's investigation.

234. In chat room conversations disclosed by the FCA, one HSBC trader referred to the need for the chat rooms to be closely controlled by participants, stating that in larger chat room "people choke up, sacred [scared] to give info." The HSBC traders understood the value of exchanging information between traders and the need to keep such information confidential, with one trader complaining that "u are uselees [useless]…how can I make free money with no fcking

head up", when another trader in the group had failed to provide advance notice that he had a large net order to execute at the WM/Reuters Rate fix.

235. Specific examples of HSBC's manipulative conduct are set forth in the FCA's Final Notice, including one incident in which HSBC attempted to manipulate the WM/Reuters Rate fix in the GBP/USD currency pair. In this example, HSBC had net client sell orders at the fix and would profit if it was able to move the WM/Reuters rate lower. HSBC's profits on this particular trade hinged upon HSBC selling GBP/USD at a rate higher in the market than the fix rate at which it bought GBP/USD. By sharing information about HSBC's and other traders' net orders with traders at other banks, HSBC was able to improve the chance of manipulating the fix rate to move lower.

236. According to the FCA, in order to accomplish this desired price movement, during the period between 2:50 p.m. and 3:44 p.m. (in advance of the 4:00 p.m. London Fix), traders at four different banks, including HSBC, inappropriately disclosed to each other via chat rooms specific details about their net orders to determine their trading strategies. According to the FCA Final Notice, HSBC then agreed to and did participate in a series of actions with the desire and purpose to "manipulate the fix rate downwards."

237. The FCA Final Notice provides the following details of this manipulation:

- First, HSBC and another trader at "Firm A" participated in a one-to-one chat disclosing net GBP/USD sell positions of GBP 400 million for HSBC and GBP 130 million for the other firm, which grew to GBP 150 million prior to the close. When HSBC's FX trader learned of the GBP 150 net sell position of the other trader, he stated "lets go" and received a reply of "yeah baby", which the FCA understands to refer to the possibility of these traders coordinating their actions to attempt to manipulate the GBP/USD London Fix downward.

- Next, at 3:28 p.m., in a group chat, including HSBC, the trader at Firm A solicited others with sell orders at the fix by commenting "hopefulyl [hopefully] a fe wmore [sic] get the same way and we can team whack it".

- Contemporaneously, at 3:28 p.m., HSBC's FX trader chatted one-to-one with a firm from a different bank, "Firm C", notifying him that he had net client sell orders of GBP 300 million at the fix and asking him to do some "digging" for others in the same direction at the fix. The trader from Firm C responded that he had GBP 83 million at the fix.

- A participant in the group chat referred to by the FCA as "Firm B" then confirmed to the other traders at 3:36 p.m. that he had net sell orders of GBP 40 million at the fix.

- Also at 3:36 p.m. a participating trader from "Firm D" commented that he had no fix orders at that time, but that he expected Firm A, which then held GBP 170 million, to "bash the fck out of it".

- At 3:38, HSBC's FX trader noted in a chat room that included Firms A, C and D as participants, that HSBC had GBP sell orders at the fix in a "good amount".

- Later in the same manipulative trading conversation, at 3:42 p.m., in a one-to-one chat, Firm A warned HSBC that a firm that was not participating in the group chat room, referred to by the FCA as "Firm E," was building a position in the opposite direction to them and would be buying at the fix.

- Within minutes, at 3:43 p.m., Firm A informed HSBC's FX trader that he had taken out some of Firm E's orders by netting them with Firm A's own sell orders, commenting to HSBC "taken him out . . . so shud have giot rid of main buyer for u…im stilla seller of 90 . . . gives us a chance." The FCA found that this was an example of Firm A "clearing the decks" for manipulation of the fix. The FCA's Final Notice further states that this comment is considered by the FCA as referring to the belief by Firm A that Firm E would no longer be transacting orders in the opposite direction of HSBC at the fix, and that Firm A still held GBP 90 in sell orders to trade at the fix and participate in the unlawful coordinated behavior and benefit from the manipulation.

238. The FCA found that during "the period from 3:32 p.m. to 4:01 p.m., HSBC sold GBP 381 million on Reuters and other trading platforms." Specifically, GBP 70 million, or 18% of this volume, was sold by HSBC in advance of the 60 second fix window around 4:00 p.m., and from 3:32 to the start of the fix window, "the GBP/USD rate fell from 1.6044 to 1.6009." In the first 5 seconds of the fix window, in 9 separate orders, HSBC sold an additional GBP 101 million, and the "bid rate fell from 1.6009 to 1.6000". The rate continued to fluctuate between 1.60000 and 1.65005, as HSBC continued to enter offers throughout the fix window, selling a

total of "GBP311 million during the fix window on Reuters and other trading platforms." As a result of these actions, WM Reuters published the London Fix rate for GBP/USD at 1.6003.

239. Reflecting the impact of the price manipulation over the approximately 30 minutes preceding the setting of the 4:00 p.m. London Fix, the FCA concluded that "[d]uring the period from 3:32 pm to the start of the fix window, the GBP/USD rate fell from 1.6044 to 1.6009" and that HSBC's early trades before the fix window opened were "designed to take advantage of the expected downwards movement in the fix rate following the discussions within the chat rooms described above." The FCA further found that HSBC's orders during the fix window constituted 51% of the volume sold on Reuters in the GBP/USD currency pair, and with HSBC, Firms A, B and C combined, the selling volume constituted "63% of selling during the fix window." HSBC's trades of GBP/USD on this particular occasion generated a profit of $162,000 for HSBC.

240. After the close of the fix, the FCA found that traders congratulated one another in the chat room on the success of their collaborative manipulation of the GBP/USD rate, touting "nice work gents . . . I don my hat", "Hoory nice team work", bravo..cudnt been better" and "have that my son . . . v nice mate" and "don't mess with our ccy [currency]". In response to one of the traders' comments that "there you go…go early, move it, hold it, push it", HSBC's FX trader responded "loved that mate…worked lovely…pity we couldn't get it below the 00" and "we need a fre more of those for me to get back on track this month".

241. In its investigation, the FCA also uncovered instances within HSBC's FX trading operations of traders engaging in manipulative trades to trigger client stop loss orders at rates higher than HSBC had purchased the currency in the market, thereby profiting. Chat room conversations demonstrated trading to intentionally trigger client stop loss orders, such as "going

to go for broke at this stop…it is either going to end in massive glory or tears" and "just about to slam some stops". The FCA also reported that HSBC responded to a request from a colleague about whether client stop loss orders were a "pain" for the traders with comments that "nah love them . . . free money" and "we love the orders…always make money on them".

c. J.P. Morgan

242. The FCA imposed a fine of £222,166,000 ($343.3 million) on J.P. Morgan, which was reduced by 30% from £317,380,000 ($490.4 million) because J.P. Morgan agreed to settle at an early stage of the FCA's investigation.

243. The FCA's Final Notice provided as an example of misconduct an instance where J.P. Morgan and another bank ("Firm A") colluded to manipulate the 4:00 p.m. London Fix in the EUR/USD currency pair. The FCA set out the mechanics of the manipulation. After their initial exchange of net position information, the FCA found that "[a]t 3:46pm, Firm A then states 'i'd prefer we join forces'. JPMorgan responded 'perfick…let's do ths…lets double team em." Firm A replied "YESsssssssssss'."

244. According to the FCA, J.P. Morgan then spent the period between 3:47 p.m. and 3:51 p.m. trading with other third parties to conduct trades that would increase J.P. Morgan' net buy position in EUR at the upcoming WM/Reuters fix window. Subsequently, between 3:52 p.m. and the opening of the fix window at 3:59:30 p.m., J.P. Morgan and the other bank executed manipulative trades that "were designed to take advantage of the expected upward movement in the fix rate". During the first five seconds of the fix window, the conspirators first bought substantial EUR positions, and then continue to buy smaller orders during the remaining portion of the fix window.

245. Collectively, J.P. Morgan and the other bank's trading accounted for 41% of the volume of EUR/USD bought during the fix. This manipulative scheme successfully increased the EUR/USD rate from 1.3957 at the start of the fix to 1.39605 once the fix rate was published. In response to its success, J.P. Morgan boasted, "*we . . . do . . . dollarrr*". Moreover, the following day, J.P. Morgan's trading partner at Firm a boasted to another bank that "*we were EPIC at the* [WMR] *fix yest . . . i dragged* [J.P. Morgan] *in , we covered all the bases b/w us*". (Italics in original).

246. The FCA also uncovered instances within J.P. Morgan's G10 FX spot trading business of traders engaging in manipulative trades to trigger client stop loss orders at rates higher than J.P. Morgan had purchased the currency in the market, thereby profiting. For example, the CFTC disclosed one chat wherein a J.P. Morgan trader "explained to other traders in a chat room that he had traded in the market in order 'to get the 69 print'", which was the spot FX rate at which a client's stop loss would be triggered. Similarly, on another occasion, the same J.P. Morgan trader explained to other J.P. Morgan traders the levels at which clients' stop losses would be triggered and inquired, "shall we go get these stops?"

d. RBS

247. The FCA imposed a fine of £217,000,000 ($335.3 million) on RBS, which was reduced by 30% from £310,000,000 ($479 million) because RBS agreed to settle at an early stage of the FCA's investigation.

248. The FCA's Final Notice included a particularly egregious example of how RBS attempted to manipulate the WM/Reuters fix in the GBP/USD currency pair. In this example, RBS had net client sell orders and would profit if it was able to move the WM/Reuters lower. To accomplish this desired movement, between 3:22 p.m. and 3:54 p.m. (*i.e.*, shortly before the 4

p.m. London Fix), traders at four different banks (including RBS) inappropriately disclosed to each other via chat rooms specific details about their net orders. After learning that one bank had a net sell order at 3:22 p.m., RBS set upon a course of "building" the volume of GBP it would sell at the fix through a series of transactions with other firms. At one point during this period, client orders briefly gave rise to a net buy order. RBS then acted to reverse this course. In all, RBS's net sell orders associated with client fix orders was GBP 202 million, but the volume of currency it needed to sell at the fix after its collusive trading increased to GBP 399 million, which the FCA found was "well above that necessary to manage [RBS's] risk associated with net client orders."

249. To carry out this manipulation, after disclosing at 3:51 p.m. in a separate chat room with three separate firms that "we getting a lot betty [GBP] at the fix," RBS then proceeded to place a series of orders on the Reuters trading platform, each with increasing size and declining price. During the fix period, the CFTC found that RBS sold GBP 182 million, or 32% of the sales in GBP/USD on the Reuters platform; and when combined with one of its confederates, that their sales equaled 41% of total GBP/USD sales on the platform.

250. As a result of this manipulation, the WM/Reuters published the fix rate for GBP/USD at 1.6218. Chat room traders praised RBS's manipulative trading by noting, "I don my hat", "welld one [sic] lads", "bravo", and by simply stating "[RBS] is god". Meanwhile, RBS acknowledged that the fix price was "nice" and RBS's confederates quipped, "we fooking killed it right… [Firm C], myself and RBS".

251. In its investigation, the FCA also uncovered instances within RBS's G10 FX spot trading operations of traders engaging in manipulative trades to trigger client stop loss orders at rates higher than RBS had purchased the currency in the market, thereby profiting. For example,

the FCA uncovered one chat wherein a RBS trader requested that a trader at another firm attempt to trigger a RBS client's stop loss order by stating, "HIT IT . . . I'm out of bullets haha".

e. UBS

252. The FCA imposed a fine of £233,814,000 ($361.3 million) on UBS, which was reduced by 30% from £334,020,000 ($516.1 million) because UBS agreed to settle at an early stage of the FCA's investigation.

253. The FCA found that manipulative misconduct at the bank's G10 FX spot trading operations occurred despite the fact that UBS had received whistleblower reports between November 2010 and December 2012 which alleged misconduct on the part of FX traders, and specifically stated that "UBS FX traders were, amongst other things, engaging in improper trading in collaboration with unspecified third parties, disclosing client confidential information and trading on that information." According to the FCA, UBS failed to investigate these issues raised by the whistleblower.

254. Further, despite UBS being on notice about misconduct as a result of the LIBOR investigation, the bank failed to implement adequate controls to address the root causes at issue in the FCA's investigation related to its G10 spot FX trading business.

255. In its investigation, the FCA also uncovered instances where certain of those at UBS who were responsible for managing front office matters were not only aware of, but at times were also involved in, the misconduct at issue.

256. The FCA Final Notice includes chat room excerpts where, for example, a UBS trader raised concerns with allowing a new trader to join the chat room. The UBS trader checked with the other traders, including those at Citigroup and J.P. Morgan, in the chat room and asked "are we ok with keeping this as is [if new trader joins] . . . & risk sharing?" and in that same

discussion, another trader in the group expressed his view that they "don't want other numpty's in mkt to know [about information exchanged within the group], but not only that is he gonna protect us like we protect each other…".

257. The Final Order also includes an example of traders at four banks, including UBS, manipulating the ECB fix on the EUR/USD currency pair. According the FCA, these traders "inappropriately disclosed to each other via a chat room details about their net orders … in order to determine their trading strategies." In a period of approximately 40 minutes preceding the ECB fix, these traders shared confidential information regarding efforts to build their net sell orders. At 12:48 p.m. one of the firms (designated by the FCA as "Firm A") reported that its net sell orders had been reduced to EUR 100, but that it was "… hopefully taking all the filth out for u…". The FCA understood this to mean that Firm A had netted off part if its net sell orders with smaller buy orders held by third parties, which might otherwise have traded in the opposition direction at the fix.

258. According to the FCA:

> At 1:02pm, Firm A disclosed that it had sold EUR25 million to a client in a transaction separate to the fix but would remain EUR25 million short ("*lose... shet [i.e. 25 million] though natch dont buy*"). The Authority considers that this statement referred to Firm A's intention not to buy this amount of Euros in the market immediately, but to take advantage of the anticipated downwards rate movement at the fix by only buying when the rate had dropped.

259. The FCA Order provides other excepts from chat room conversations among these traders related to this manipulation and found:

> The information disclosed between UBS and Firms A, B and C, regarding their order flows was used to determine their trading strategies. The consequent "*building*" by UBS and its trading in relation to that increased quantity at the fix were designed to decrease the ECB fix rate to UBS's benefit. UBS undertook the selling of Euros prior to the 1:15pm ECB fix in anticipation that the fix rate at which it would buy Euros would be lower than the average rate at which it had sold. The placing of a large sell order by UBS immediately prior to 1:15pm was

> designed to achieve this outcome. UBS's trading in EUR/USD in this example generated a profit of USD513,000.

260. The FCA quoted comments by the other traders congratulating the UBS trader on their successful manipulation of the ECB fix, stating: "hes sat back in his chaoir [sic]…feet on desk…announcing to desk…that's why i got the bonus pool" and "yeah made most peoples year".

261. In its investigation, the FCA also uncovered instances within UBS's G10 FX spot trading operations of traders engaging in manipulative trades to trigger client stop loss orders in a manner that benefited UBS to the detriment of their clients. For example, one UBS trader commented in a chat room "i had stops for years but they got sick of my butchering" and, at another time described himself as "just jamming a little stop here".

3. The OCC Settlements against Citibank, J.P. Morgan and BofA

262. As nationally chartered banks, Citibank, J.P. Morgan and BofA fall within the regulatory jurisdiction of the U.S. Office of the Comptroller of the Currency (previously defined as the OCC). In a press release dated November 12, 2014, the OCC announced that it had instituted enforcement actions against, and fined Citibank, J.P. Morgan and BofA a total of $950 million for unsafe and unsound practices related to their FX trading businesses between 2008 and 2013.

263. As did other regulators, the OCC found that FX spot traders at Citibank, J.P. Morgan and BofA participated in group chat room discussions about "coordinating FX trading strategies to manipulate exchange rates to benefit the traders or the bank." On November 11, 2014, the OCC entered into Consent Orders with each of these banks, in connection with each bank's failure to supervise employee conduct in FX trading, including unlawful disclosure of

customer orders and rate spreads and collusion to trigger trading actions potentially detrimental to customers and beneficial to the trader or bank.

264. The OCC found that during 2008 through 2013, Citibank, J.P. Morgan and BofA each was an active dealer in the G10 spot FX market. The OCC noted that the daily average turnover in G10 currency pairs constitutes approximately 75% of total FX turnover, according to the BIS.

265. The OCC found that the banks primarily transacted with customers by facilitating three types of orders: market orders, limit orders and fix orders. For market orders, the banks agree to buy or sell at the best available market price. For limit orders, the banks agree to buy from or sell to the customer at a pre-designated rate, including through stop loss and take profit orders. For fix orders, the bank agrees to buy from or sell to the customer at a specified fix rate. To manage risks associated with such fix orders, the banks transact prior to the fixing window in an amount sufficient to cover their net fix rate orders. The OCC found that FX spot traders at the banks participated in collusive activity between and among themselves and other banks.

266. According to the OCC Consent Orders, manipulation of FX spot prices and benchmark rates by FX traders at Citibank, J.P. Morgan and BofA occurred and went undetected for years, including during 2008 through 2013. These traders engaged in agreements and coordinated efforts and trading strategies to attempt to manipulate FX spot prices and benchmark rates, including the WM/Reuters Rates and ECB benchmark rates. Pursuant to their scheme, the traders participated in multibank online chat rooms, and collusively discussed trading, *inter alia*, in particular currency pairs, or to trigger customers' limit orders or barrier options for the traders' or banks' benefit and the customers' detriment. The chat room discussions also encompassed plans and agreements to trade in advance of pending customer orders to benefit the banks, and

with reckless disregard for potential harm to customers. Citibank's, J.P. Morgan's and BofA's FX traders improperly shared confidential customer order flows and proprietary bank information, including FX price spreads.

267. All Board members for each of the three banks stipulated and agreed to their bank's Consent Order with the OCC, and committed to overseeing a comprehensive FX compliance plan required by the OCC to ensure safe and sound banking practices.

4. The FINMA Settlement against UBS

268. In October 2013, FINMA initiated an investigation into UBS's conduct in the FX spot market. On November 12, 2014, the investigation concluded and FINMA issued a detailed ruling.

269. Misconduct uncovered in FINMA's investigation included evidence that: (i) UBS traders repeatedly manipulated foreign exchange benchmarks to generate profits for UBS or for third parties; (ii) traders took actions which were in direct conflict with the interests of their clients and customers by (a) actively triggering client stop-loss orders to the advantage of UBS, (b) engaging in front-running, (c) engaging in risk-free speculation at the clients' expense, and (d) disclosing confidential client information to third parties; and (iii) traders engaged in deception regarding sales mark-ups and excessive mark-ups associated with an internal product of UBS.

270. In its report, FINMA held that the use of electronic communication platforms or chat rooms, played a key role in UBS' improper business conduct.

271. FINMA also found that UBS had: (i) insufficient risk assessment tools in place, including a lack of sufficient controls to prevent the simultaneous trading of proprietary and client accounts at the same time, leading to conflicts of interest; (ii) an incentive system in place in which a trader could earn compensation for trading which was on average triple the base

salary, thereby incentivizing traders to engage in manipulative conduct; and (iii) no measures in place to prevent these inappropriate forms of trading. FINMA also found that UBS desk supervisors ignored the misconduct and/or failed to provide any oversight of the traders in order to prevent the misconduct.

272. As a result of these violations, FINMA ordered UBS to pay CHF 134 million ($141 million). FINMA also mandated that trader compensation be limited for a period of two years and that UBS implement a special review process. In addition, FINMA initiated proceedings against eleven current and former high level executives at UBS to determine the level of their involvement.

5. Other Governmental and Regulatory Investigations of Defendants' FX Trading and Influence in the FX Market Are Ongoing

273. Other governmental and regulatory investigations regarding FX manipulation by Defendants are ongoing, including the following:

a. U.S. Department of Justice ("DOJ")

274. On October 29, 2013, Acting Assistant Attorney General Mythili Raman (acting head of DOJ's Criminal Division) confirmed that DOJ's Criminal and Antitrust Divisions are actively investigating Defendants' manipulation of FX benchmark rates, including the London Fix. The DOJ is undertaking a broad probe into whether banks have colluded to manipulate FX benchmark rates to boost their profits. The DOJ confirmed that several banks agreed to produce information relating to FX benchmark rates, pursuant to their obligations under deferred prosecution and non-prosecution agreements reached in connection with the DOJ's LIBOR investigation. According to a *Bloomberg* article dated November 14, 2014, the DOJ has given banks under investigation until mid-December 2014 to turn over related information. Attorney General Eric H. Holder, Jr. said that he expected the beginning stages of resolution of the DOJ's

investigation into FX manipulation to come "relatively soon", according to *Bloomberg*. In October 2014, *Bloomberg* also reported that the DOJ was looking for guilty pleas from a number of banks, including one based in the U.S. In November 2014, J.P. Morgan Chase disclosed in an SEC filing that it was cooperating with the DOJ's probe into manipulation of FX spot trading, as well as related controls for FX activities.

275. The *WSJ* reported in February 2015 that Justice Department officials "are growing more certain they have evidence to support criminal charge of collusive conduct among employees of Barclays PLC, Citigroup Inc., J.P. Morgan Chase & Co., and Royal Bank of Scotland." The article went on to report:

> Justice Department officials still are pursuing separate criminal fraud cases aimed largely at individuals, and it is possible a criminal fraud charge could be filed against one or more banks. But the majority of the evidence gathered in the foreign-exchange investigations – including from bank employees who secretly cooperated with investigators – **supports criminal antitrust charges**, these people said. (Emphasis added).

276. The *WSJ* article quoted DOJ sources as saying that any resolution of the foreign-exchange probe of the four banks "is likely still months away," and that "[o]ther banks also being investigated for their roles in the foreign-exchange market could take even longer." The article also noted that the DOJ has not asked the OCC for assurances that the banks' guilty pleas will not trigger hearings by the OCC to revoke the banks' charters.

277. Separately, in 2012-2013, the DOJ entered into individual deferred prosecution and non-prosecution agreements with Defendants Barclays, UBS, and RBS in connection with LIBOR investigations. These non-prosecution and deferred prosecution agreements require each bank to provide information relating to benchmark manipulation, including manipulation of FX benchmark rates. UBS and other banks, including J.P. Morgan and Citibank, have disclosed that they are under criminal investigation for FX manipulation.

278. The DOJ has stated that "[t]he cooperation that we have been able to secure as part of our agreements in the Libor investigation has been very helpful to us in terms of holding banks' feet to the fire." The DOJ has further stated that these cooperation provisions have produced "tangible, real results." The cooperation "expanded our investigations into the possible manipulation of foreign exchange and other benchmark rates."

279. A person familiar with the DOJ's investigation stated that banks are providing the DOJ with witness lists, making employees available for interviews, and providing documents.

280. In November 2013, DOJ and FBI agents questioned Robert Wallden, a director in Deutsche Bank's foreign exchange trading unit, at his New York home. Agents questioned Mr. Wallden about transcripts of an electronic chat where he boasted "about his ability to influence currency markets."

281. The DOJ has also questioned executives at BNP Paribas as part of its investigation into FX market manipulation. As of March 6, 2014, BNP Paribas had suspended its head of FX spot trading, Robert De Groot.

282. Similarly, on November 25, 2014, *Reuters* reported that prosecutors with the DOJ were traveling to London to interview traders at HSBC about FX market manipulation.

283. Attorney General Holder publicly commented on the DOJ's probe, stating in November 2013, that "the manipulation we've seen so far may just be the tip of the iceberg"; that "we've recognized that this is potentially an extremely consequential investigation"; and that the DOJ's criminal and antitrust divisions are "taking a leading role" in "the truly global investigation."

284. In November 2013, Deputy Attorney General James Cole commented further on the DOJ's investigation:

> The department's criminal and antitrust divisions along with the FBI, regulators and other law enforcement agencies around the world are aggressively investigating possible manipulation of foreign-exchange rates involving a number of financial institutions.

285. On February 7, 2014, *Reuters* reported that UBS approached the DOJ in September 2013 with information relating to the FX probe in hope of gaining antitrust immunity under the Antitrust Division's Leniency Program. UBS uncovered incriminating chats by traders and turned over the evidence to the DOJ as part of UBS's application for amnesty.

b. Additional Investigations in the United States Are Ongoing

286. Other state and federal authorities in the U.S. are also actively investigating manipulation of FX benchmark rates, including the WM/Reuters Rates, including:

a. The CFTC asked major currency-dealing banks, including Defendant Deutsche Bank, to produce records as part of a probe into currency market manipulation.

b. The Federal Reserve Bank is investigating FX manipulation.

c. The New York Department of Financial Services ("DFS") opened an investigation of several banks in connection with FX rate market manipulation, and has subpoenaed several banks, including Defendants Credit Suisse, RBS, Citigroup, Deutsche Bank, Barclays, and Goldman Sachs, requesting emails and instant messages from currency traders. According to *Bloomberg*, Benjamin Lawsky, the Superintendent of the DFS "is investigating about a dozen banks, [and] has ordered a monitor to be installed at Deutsche Bank and already has one in place at Barclays." According to the *WSJ*, Lawsky "is weighing a fine or other punishment for Barclay's, including restrictions on certain New York business lines and the required termination of certain employees."

d. The U.S. Securities and Exchange Commission ("SEC") is investigating whether currency traders distorted prices for options and exchange-traded funds by rigging benchmark FX rates.

c. The FCA's Investigation is Ongoing

287. The FCA is continuing to investigate manipulation of benchmark FX rates, including the WM/Reuters Closing Spot Rates, following the announcement of its November 2014 settlements. The FCA has investigative and enforcement powers with respect to financial services providers.

288. On November 14, 2014, *Bloomberg* reported that Barclays had pulled out of the FCA's group settlement with other banks, after Benjamin Lawsky, the head of New York's Department of Financial Services, which is New York's banking regulator, refused to join in the FCA's settlements. According to *Bloomberg*, Barclays was concerned about Mr. Lawsy's view that the settlements may not have been severe enough, as Barclays relies upon a New York license to conduct business. According to an October 6, 2014, *WSJ* article, the New York banking regulator may bring an action against Deutsche Bank's New York branch, separate from the possible action by prosecutors against Deutsche Bank or one of its subsidiaries for manipulation FX.

289. Previously, in September 2014, the *WSJ* reported that the FCA said that its FX investigation has led to "unprecedented global cooperation" between global financial authorities, including 52 instances of requests from other regulators.

290. In addition to the FCA, in a statement issued on July 21, 2014, the UK Serious Fraud Office ("SFO") announced: "The director of the Serious Fraud Office has today opened a

criminal investigation into allegations of fraudulent conduct in the foreign exchange market." The SFO is an independent agency that polices fraud, bribery and corruption.

291. According to press reports confirming the SFO investigation:

> The move comes after around 15 authorities around the world said they were investigating allegations of collusion and price manipulation in the largely unregulated currency market – which the Bank of England governor, Mark Carney, has suggested could prove to be a bigger scandal than the manipulation of Libor, which has cost investment banks billions of pounds in fines imposed by regulators.

d. The European Commission ("EC") Is Investigating the FX Market and Manipulation of FX Benchmark Rates

292. EC's Competition Commissioner, Joaquin Almunia, acknowledged its investigation of the FX market, and in particular, manipulation of FX benchmark rates, including the WM/Reuters Closing Spot Rates. Mr. Almunia said the EC learned of activities that "could mean violation of competition rules around the possible manipulation of types of exchange rates." During a press conference in December 2013, Mr. Almunia stated that the EC was "looking very carefully at Forex." Mr. Almunia also stated, "We have internal information regarding possible manipulation of forex benchmarks . . . . We are in the preliminary steps." A person familiar with the EC's investigation stated that banks are queuing up to provide incriminating information "of startling quality."

e. The Swiss Competition Is Investigating Manipulation of the FX Market

293. Swiss authorities are actively investigating manipulation of FX benchmark rates, including the WM/Reuters Closing Spot Rates. On September 30, 2013, the Swiss Competition Commission ("Swiss WEKO") opened a preliminary investigation into manipulation of FX markets after learning about discussions about FX rates between banks. The Swiss WEKO stated, "Through discussions they are said to have manipulated various exchange rates." On

March 31, 2014, the Swiss WEKO provided additional details on its investigation, noting that it is investigating included Defendants UBS, Credit Suisse, J.P. Morgan, Citigroup, Barclays, and RBS, among others, and stating, "The possible actions include the following: the exchange of confidential information, the general co-ordination of transactions with other market participants at agreed price levels, coordinated actions to influence the WM/Reuters fix as well as the co-ordination of the sale and purchase of currencies in relation to certain third parties." The Swiss WEKO's statement concluded, "There are indications that these banks went into anti-competitive agreements to manipulate price rates in foreign exchange trading."

f. German Regulators Are Investigating Manipulation of FX Benchmark Rates

294. Germany's top financial regulator, the Federal Financial Supervisory Authority ("BaFin"), is actively investigating manipulation of FX benchmark rates, including the WM/Reuters Closing Spot Rates. BaFin has made its FX investigation a top priority and moved it into a "special investigation" category. According to a BaFin spokesperson's statement on January 16, 2014, "Bafin is presently investigating the facts and has kept an eye on the currency trading issues since the summer." That same day, BaFin's President, Elke Koenig, stated the allegations of FX manipulation are "particularly serious because such reference values are based – unlike Libor and Euribor – typically on transactions in liquid markets and not on estimates of the banks." BaFin representatives reportedly visited the London offices of Defendant Deutsche Bank.

g. The Hong Kong Monetary Authority Is Cooperating In Ongoing Investigations into FX Manipulation

295. In October 2013, the Hong Kong Monetary Authority confirmed it was in cooperating with other regulators about their ongoing FX investigations, stating: "The Hong

Kong Monetary Authority is aware of the allegations. We have been in communications with the relevant overseas regulators and following up with individual banks."

h. The Monetary Authority of Singapore Is Cooperating In Ongoing Investigations into FX Manipulation

296. Singapore is Asia's largest FX center and the world's third largest FX trading hub (behind only London and New York), averaging $383 billion per day of FX turnover in April 2013. The Monetary Authority of Singapore confirmed that it "has been in touch with foreign regulators on the issue of alleged manipulation in the WM/Reuters foreign exchange benchmark rates. We stand ready to assist in their investigations."

i. Australia Securities and Investment Commission Is Investigating Manipulation in the FX Market

297. The Australia Securities and Investment Commission ("ASIC") announced it commenced a probe into rigging by banks in the FX markets. Greg Medcraft, chairman of ASIC, has stated, "We are commencing a review to ascertain whether any misconduct relating to foreign exchange trading may have occurred in Australia. And whether from an Australian perspective ASIC has concerns about the foreign exchange market." Australia is cooperating with other regulators throughout the world.

j. The New Zealand Commerce Commission Is Investigating the FX Market

298. New Zealand's Commerce Commission also announced an investigation into the FX market. The Commerce Commission has an "investigation in that space," according to a spokesperson from the agency.

k. Financial Stability Board

299. The Financial Stability Board ("FSB") is an international body that was established in April 2009 as the successor to the Financial Stability Forum ("FSF"). The FSB

coordinates regulation for the Group of Twenty ("G20") leading economies, organizing the work of national financial authorities and international standard setting bodies. The FSB includes all G20 major economies, FSF members, and the EC. The FSB set up a task force in 2013 to try to repair or replace tarnished financial benchmarks in the wake of LIBOR manipulation.

300. On February 14, 2014, the FSB, led by Bank of England governor Mark Carney, said it would review the FX benchmarks:

> The [FSB] was tasked by the G20 in 2013 to co-ordinate and guidework on the necessary reforms to short-term interest rate benchmarks, to ensure that widely-used benchmarks are held to appropriate standards of governance, transparency and reliability.
>
> * * *
>
> Recently, a number of concerns have been raised about the integrity of foreign exchange (FX) rate benchmarks. The FSB has consequently decided to incorporate an assessment of FX benchmarks into its ongoing programme of financial benchmark analysis.
>
> To take this work forward, a new sub-group on Foreign Exchange Benchmarks has been established. The new group will be chaired by Guy Debelle (Assistant Governor, Financial Markets, Reserve Bank of Australia) and Paul Fisher (Executive Director for Markets, Bank of England), both members of the [Official Sector Steering Group] (OSSG.).
>
> The FX Benchmarks Group will undertake a review of FX benchmarks and will analyse market practices in relation to their use and the functioning of the FX market as relevant. Conclusions and recommendations will be transmitted by the FSB to the Brisbane Summit.

301. The FSB has made a significant number of recommendations to bolster the integrity of the FX markets and related benchmark rates and fixes.

V. DEFENDANTS WERE AND ARE HORIZONTAL COMPETITORS IN THE MARKET FOR FX SPOT CURRENCIES AND FX FUTURES AND OPTIONS

302. As alleged herein, Defendants dominate the market for FX spot transactions and have the power collectively to control prices in that market. Because of the direct causal

relationship between FX spot market prices and FX Futures prices (*i.e.*, FX Futures prices respond rapidly to FX spot price changes), Defendants consequently have the power to control, and did control, prices in the FX Futures market.

303. Defendants are, and were during the Class Period, horizontal competitors in both the market for FX spot transactions and in the FX Futures market. In the market for FX spot transactions, Defendants compete against each other on at least two levels. First, Defendants compete against each other by offering clients access to the spot market at competitive bid/ask spreads. Second, Defendants compete against each other as traders for their own accounts – including by seeking profits from taking net long or short positions – and to obtain the most beneficial positions at prices determined by, absent Defendants' collusion as alleged herein, competition with other traders. Worldwide competition among the Defendants, which are the largest dealers in FX spot market, acted to narrow the spread between bid and ask prices, and contributed to create an efficient FX market.

304. In the FX Futures market, Defendants compete against each other and other traders, as both proprietary traders seeking profits by taking net long or short positions, and also for the purposes of FX risk management by using futures and options to hedge FX exposures. In both cases (proprietary trading and hedging), Defendants seek to obtain the most beneficial futures contracts and options at prices determined by, absent Defendants collusion as alleged herein, competition with other traders.

305. During the Class Period, Defendants traded FX spot contracts and other related derivative contracts, including exchange-traded FX Futures. By acting together, Defendants could and did control where FX spot prices and benchmark rates would be set on certain days and could impose artificial suppression or inflation of FX spot prices and benchmark rates to

benefit their and their co-conspirators' related FX spot trading positions. Defendants' manipulation of the FX spot prices and FX benchmark rates, as alleged herein, injures competition. FX benchmark rates are prices determined by FX spot quotes and trades during a window of time, for example surrounding 4:00 p.m. London time for the London Fix, and thus reflect actual market activity. Defendants' collusive conduct interfered with the competitive interplay of supply and demand and caused the FX spot prices and FX benchmark rates to be manipulated. This collusive, artificial manipulation of FX spot prices and benchmark rates had an immediate, direct, substantially certain and foreseeable corresponding impact on prices of exchanged-traded FX Futures.

VI. PLAINTIFFS' INJURY FLOWED DIRECTLY FROM THE ANTICOMPEITIVE NATURE OF DEFENDANTS' CONDUCT

306. The injury suffered by Plaintiffs and other members of the Class flowed directly from Defendants' collusive manipulation of FX spot prices and benchmark rates. Defendants' anticompetitive conduct had severe adverse consequences on competition in that Defendants artificially ensured advantageous market movements in the FX spot prices and FX benchmark rates by exchanging confidential customer information and agreeing to concerted traded strategies, such as front running, banging the close, and painting the screen, based on aggregate customer order flow information. As alleged herein, no one Defendant could accomplish systematic and continuing manipulation of FX spot prices and FX benchmark rates without coordinating with its rivals. Absent Defendants' knowledge of one another's confidential customer information, the conduct alleged herein would be a risky strategy. Defendants benefited from coordinating their market activities.

307. Changes in spot market prices are immediately and correspondingly reflected in FX Futures prices. The direct harm suffered by Plaintiffs and the members of the Class

happened because the prices of FX Futures contracts are tied to FX spot prices and FX benchmark rates. As a result, Defendants' collusion to fix and manipulate prices in the FX spot market directly caused Plaintiffs and members of the Class injury to their business or property, and actual damages, in the form of diminished profits or increased losses on their exchange-traded FX Futures. Such antitrust injury to Plaintiffs and Class members flowed directly from the anticompetitive nature and effects of Defendants' collusive conduct, which replaced prices set by competition among horizontal competitors with prices set by Defendants' collusive manipulation.

308. The injury to Plaintiffs and members of the Class is of the type the antitrust laws were designed to prevent and flow from that which makes Defendants' acts alleged herein unlawful.

VII. CLASS ACTION ALLEGATIONS

309. Plaintiffs bring this action pursuant to Rule 23 of the Federal Rules of Civil Procedure on behalf of themselves and all others similarly situated. The "Class" is defined as:

> all persons, corporations and other legal entities that entered into any standardized FX futures contracts and options on FX futures contracts transacted on a Relevant Exchange at or around the time of setting key FX benchmark rates such as London Fix or CME Daily Settlement Fix, or that was priced based in whole or in part on such benchmark rates between at least as early as January 1, 2008 and the present (the "Class Period").
>
> Excluded from the Class are the Defendants, officers, directors or employees of any Defendant; any entity in which any Defendant has a controlling interest; any affiliate, legal representative, heir, assign, parent, subsidiary and co-conspirator of any Defendant.

310. Each member of the Class incurred costs, fees, and/or other expenses associated with transacting in exchange-traded FX Futures during the Class Period. No member of the Class would have consensually incurred the costs, fees, and/or other expenses associated with

such transactions, had such Class member been aware that he, she or it faced a risk of loss arising from collusive manipulation of FX prices by the Defendant banks that dominate the FX market. Therefore, each member of the Class suffered injury caused by Defendants' conduct when they incurred the costs, fees, and/or other expenses associated with such transactions during the Class Period.

311. The members of the Class are so numerous and geographically dispersed that joinder of all members is impracticable. There are at least hundreds of individuals or entities that purchased, sold, or held relevant FX Futures during the Class Period at prices artificially affected by Defendants' wrongful conduct. While the exact number and identity of Class members is unknown to Plaintiffs, this can be ascertained from readily available information.

312. There are questions of law and fact common to all Class members, including, but are not limited to:

a. whether Defendants manipulated FX spot and/or benchmark rates;

b. the nature and duration of the Defendants' manipulation of FX spot and/or benchmark rates;

c. whether manipulation of FX rates injected artificial prices into FX Futures traded on the Relevant Exchanges;

d. whether or to what degree Defendants' participated in the FX Futures market;

e. whether Defendants' conducted violated Section 22 of the CEA;

f. whether Defendants' conduct acted to aid and abet violation of the CEA;

g. whether Defendants conspired to manipulate FX spot and benchmark rates;

h. whether Defendants combined, agreed, or conspired to suppress, fix, maintain, or stabilize FX spot and benchmark rates in violation of the antitrust laws;

i. whether Defendants' unlawful conduct caused injury to the business or property of Plaintiffs and the Class;

j. whether Plaintiffs knew, or had any reason to know, of the conspiracy engaged in by Defendants;

k. whether the Defendants and their co-conspirators fraudulently concealed their misconduct from Plaintiffs and the members of the Class; and

l. the appropriate class-wide measure of relief for the Defendants' violations of the CEA and antitrust laws.

313. Plaintiffs' claims are typical of the claims of the members of the Class, and Plaintiffs will fairly and adequately protect the interests of the Class.

314. There is no conflict of interest between Plaintiffs and other members of the Class. Plaintiffs are represented by sophisticated class action counsel, experienced in complex antitrust and commodities futures manipulation litigation. Defendants have acted in an unlawful manner on grounds generally applicable to all members of the Class.

315. The questions of law or of fact common to the claims of the Class predominate over any questions affecting only individual Class members, including legal and factual issues relating to liability and damages, so that certifying this case as a class action is superior to other available methods for the fair and efficient adjudication of the controversy.

316. Class action treatment is a superior method for the fair and efficient adjudication of the controversy, in that, among other things, such treatment will permit a large number of similarly situated persons to prosecute their common claims in a single forum simultaneously, efficiently and without the unnecessary duplication of evidence, effort and expense that numerous individual actions would engender. The benefits of proceeding through the class

mechanism, including providing injured persons or entities with a method for obtaining redress for claims that it might not be practicable to pursue individually, substantially outweigh any difficulties that may arise in management of this class action.

317. The prosecution of separate actions by individual members of the Class would create a risk of inconsistent or varying adjudications, establishing incompatible standards of conduct for Defendants.

318. Plaintiffs are unaware of any difficulties that are likely to be encountered in the management of this action that would preclude its maintenance as a class action.

VIII. THE DISCOVERY RULE AND FRAUDULENT CONCEALMENT

319. During the Class Period, Defendants actively, fraudulently, and effectively concealed their collusion and manipulation of FX spot prices and FX benchmark rates, as alleged herein, from Plaintiffs and members of the Class.

320. By its very nature, the unlawful activity alleged herein was self-concealing. Defendants conspired to manipulate FX benchmark rates, primarily the London Fix, to the benefit of Defendants and to the detriment of Plaintiffs and members of the Class, and they further conspired to keep their collusive and manipulative conduct secret. As a result and as described herein, Plaintiffs could not, and thus did not, discover that they had suffered possible injury, at the earliest, prior to an article in *Bloomberg* dated June 12, 2013 that first disclosed possible FX price manipulation.

321. Defendants fraudulently concealed their anticompetitive activities by, among other things, engaging in secret communications in furtherance of their conspiracy. These communications occurred within non-public chat rooms, instant messages, and through email, none of which was reasonably available to Plaintiffs or members of the Class.

322. The chat rooms in question were operated by the highest-ranking traders within Defendants' operations, and Defendants strictly limited access to the chat rooms. The substance of the conversations by specific Defendants occurring within these chat rooms was unknown to Plaintiffs until November 2014, when government and regulatory investigations culminated in publicly-disclosed settlements and orders, which revealed, in part, the nature of Defendants' misconduct and the currencies involved, through the publication of limited excerpts from chat room conversations. Even then, these regulatory settlements and orders did not reveal the dates or other specifics regarding the FX manipulation by the settling Defendants.

323. In October 2013, when the first traders alleged to be involved in the FX manipulation were put on leave, Plaintiffs' counsel commenced an investigation into the possible manipulation of FX spot prices and FX Futures.

324. None of the facts or information available to Plaintiffs, or obtained through Plaintiffs' counsel's investigation and reasonable diligence, could or would have led to the discovery of the conspiracies and manipulation alleged in this Complaint.

325. As a result, Plaintiffs were prevented from learning of the facts needed to commence suit against Defendants for the manipulative conduct alleged in this Complaint until Defendants and regulators publicly acknowledged their investigations and the scope thereof.

326. The facts necessary for Plaintiffs to formulate the basis of a complaint and satisfy applicable pleading standards remained within the exclusive control of Defendants, their co-conspirators, and the governmental regulatory authorities investigating the activity alleged herein.

327. News articles relating to possible FX manipulation and the suspension or termination of FX traders did not identify the currency pairs involved in the manipulation, the

parties to the manipulation, the dates of the manipulation, or provide substantial detail as to how the manipulation occurred.

328. Plaintiffs and the Class have acted diligently in seeking to bring their claims promptly. Because of Defendants' active steps, including fraudulent concealment of their conspiracy to prevent Plaintiffs from suing them for the manipulative activities alleged in this Complaint, Defendants are equitably estopped from asserting that any otherwise applicable limitations period has run.

IX. CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

Manipulation of FX Futures Prices
in Violation of the Commodity Exchange Act
(7 U.S.C. § 1, *et seq.*)
(Against All Defendants)

329. Plaintiffs incorporate the allegations in this Complaint by reference and reallege them as though fully set forth herein.

330. The Relevant Exchanges have been designated by the CFTC as contract markets pursuant to Section 5 of the CEA, 7 U.S.C. § 7. The Relevant Exchanges submit to the CFTC various rules and regulations for approval through which these exchanges design, create the terms of, and conduct trading in FX Futures. The Relevant Exchanges are organized, centralized markets that provide a forum for trading on-exchange FX Futures.

331. Defendants and their co-conspirators, through the acts alleged in this Complaint, specifically intended to and did cause unlawful and artificial manipulation of FX spot currency prices and understood and knew to a substantial certainty, as active and sophisticated FX market traders (including as active FX Futures traders), that manipulation of FX spot prices would have a direct corresponding manipulative effect on FX Futures prices and would cause corresponding

actual damages to Plaintiffs and members of the class. Such consequences were thus fully and certainly foreseeable, and Defendants knowingly, intentionally, and/or recklessly caused such harm and injury. The acts of manipulation described in the complaint had no legitimate business purpose.

332. Plaintiffs and others who transacted in FX Futures transacted at artificial and unlawful prices resulting from Defendants' manipulations in violation of the Commodity Exchange Act, 7 U.S.C. § 1, *et seq*., and as a direct result thereof were injured and suffered damages.

333. Defendants' conduct caused injury to Plaintiffs and other members of the Class who transacted in an artificial and manipulated market, at manipulated prices, and with artificial price trends, during the Class Period.

334. By their intentional misconduct, Defendants each violated Section 9(a)(2) of the CEA, 7 U.S.C. § 13(a)(2), and caused prices of FX Futures to be artificial.

335. Defendants' activities alleged herein constitute market power manipulation of the prices of FX Futures in violation of Sections 9(a) and 22(a) of the CEA, 7 U.S.C. §§ 13(a) and 25(a). Defendants' extensive manipulative conduct deprived Plaintiffs and other Class members of a lawfully operating market during the Class Period.

336. Plaintiffs and Class members paid artificial prices for their FX Futures, were deprived of a lawfully operating market free from manipulation, and are entitled to recover their actual damages resulting therefrom for the violations of the CEA alleged herein.

SECOND CLAIM FOR RELIEF

Vicarious Liability for Manipulation of FX Futures Prices
in Violation of the Commodity Exchange Act
(7 U.S.C. § 2)
(Against All Defendants)

337. Plaintiffs incorporate the allegations in this Complaint by reference and reallege them as though fully set forth herein.

338. Each Defendant is liable under Section 2(a)(1) of the CEA, 7 U.S.C. § 2(a)(1), for the manipulative acts of their agents, representatives, and/or other persons acting for them.

THIRD CLAIM FOR RELIEF

Aiding and Abetting in the Manipulation of FX Futures Prices
in Violation of the Commodity Exchange Act
(7 U.S.C. § 25)
(Against All Defendants)

339. Plaintiffs incorporate the allegations in this Complaint by reference and reallege them as though fully set forth herein.

340. Defendants knowingly aided, abetted, counseled, induced, and/or procured the violations of the CEA alleged herein. Defendants did so knowing of other Defendants' manipulations of FX spot prices, and therefore of FX Futures prices, including by trading ahead, banging the close and painting the screen in connection with FX spot transactions, and willfully intended to assist these manipulations to cause the price of FX Futures to be artificial, in violation of Section 22(a)(1) of the CEA, 7 U.S.C. § 25(a)(1).

341. Plaintiffs and the Class are each entitled to actual damages for the violations of the CEA alleged herein.

342. As a further direct result of the acts of Defendants, Plaintiffs and the Class have been required to act in the protection of their interests by filing this action, and have incurred attorneys' fees and other expenditures, in a sum to be proven at trial.

FOURTH CLAIM FOR RELIEF
Manipulation by False Reporting and Fraud and Deceit In Violation of the Commodity Exchange Act, as Amended,
(7 U.S.C. §§ 1, *et seq.* and Rule 180.1(a))
(Against All Defendants)

343. Plaintiffs incorporate the allegations in this Complaint by reference and reallege them as though fully set forth herein.

344. By their intentional and reckless misconduct, Defendants each violated Section 6(c)(1) of the CEA, as amended, 7 U.S.C. § 9, and caused prices of FX Futures and other derivatives contracts and derivatives to be artificial during the Class Period. Defendants delivered and caused to be delivered for transmission through the mails and interstate commerce, by multiple means of communication, including communications to electronic trading platforms, false or misleading or inaccurate reports concerning order and trade information that affect or tend to affect the price of FX spot contracts and benchmark prices and FX Futures, which are commodities in interstate commerce, knowing, or acting in reckless disregard of the fact that such report was false, misleading or inaccurate.

345. Under Section 6(c)(1) of the CEA, as amended, codified at 7 U.S.C. § 9, and Section 22 of the CEA, as amended, 7 U.S.C. § 25, it is unlawful for any person, directly or indirectly, to use or employ or attempt to use or employ, in connection with any swap, or a contract of sale of any commodity in interstate commerce, or for future delivery on or subject to the rules of any registered entity, any manipulative or deceptive device or contrivance, in contravention of such rules and regulations as the CFTC, which shall promulgate by not later than 1 year after July 21, 2010.

346. In July 2011, the CFTC promulgated Rule 180.1(a), 17 C.F.R. § 180.1(a) (2011), which provides, in relevant part:

> It shall be unlawful for any person, directly or indirectly, in connection with any swap, or contract of sale of any commodity in interstate commerce, or contract for future delivery on or subject to the rules of any registered entity, to intentionally or recklessly use or employ, or attempt to use or employ, any manipulative device, scheme, or artifice to defraud, make, or attempt to make, any untrue or misleading statement of a material fact or to omit to state a material fact necessary in order to make the statements made not untrue or misleading.

347. Unlawful manipulation under the CEA, as amended, and Rule 180.1 includes delivering, or causing to be delivered for transmission through the mails or interstate commerce, by any means of communication whatsoever, a false or misleading or inaccurate report concerning market information or conditions that affect or tend to affect the price of any commodity in interstate commerce, knowing, or acting in reckless disregard of the fact that such report is false, misleading or inaccurate.

348. During the Class Period, Defendants used or employed manipulative or deceptive devices or contrivances, in connection with a contract of sale or purchase of currency exchanges in interstate commerce. This conduct included the making of untrue or misleading statements of material facts, or omitting material facts necessary to make the statements made not misleading, such as:

a. Making untrue or misleading statements to influence FX prices reflected in trading platform databases and related WM/Reuters Rates, including the London Fix;

b. Failing to disclose, and omitting, that they entered pre-arranged transactions to move prices in a direction to benefit their own trading books;

c. Failing to disclose, and omitting, that they were unlawfully conspiring between and among themselves to manipulate, *inter alia*, FX spot and benchmark prices;

d. Failing to disclose, and omitting, that they were reporting bids, offers and transactions to Currenex, EBS and Thomson Reuters to move FX spot and benchmark prices uneconomically to benefit their trading positions;

e. Issuing statements and directly engaging in the acts alleged herein knowingly or with reckless disregard for the truth; and

Defendants also employed various other deceptive devices as described above.

349. Defendants' conduct caused injury to Plaintiffs and other members of the Class who transacted in an artificial and manipulated market, at manipulated prices, and with artificial price trends, during the Class Period.

350. Plaintiffs and the other members of the Class are each entitled to damages for the violations of the CEA alleged herein.

FIFTH CLAIM FOR RELIEF
Contract Combination or Conspiracy to Manipulate Prices in Violation of Section 1 of the Sherman Act and Section 4 of the Clayton Act
(15 U.S.C. § 1; 15 U.S.C. § 15)
(Against All Defendants)

351. Plaintiffs incorporate the allegations in this Complaint by reference and reallege them as though fully set forth herein.

352. Defendants constituted and/or entered into a contract, combination or conspiracy in restraint of trade, i.e., to manipulate or fix prices of FX spot currency rates and/or FX benchmark rates, including the WM/Reuters Rates and related London Fix, during the Class Period in violation of Section 1 of the Sherman Act and Section 4 of the Clayton Act.

353. During the Class Period, Defendants possessed market power in the setting of FX spot currency rates and FX benchmark rates, including the WM/Reuters Rates and the London Fix.

354. The conspiracy consisted of a continuing agreement, understanding or concerted action between and among Defendants and their co-conspirators in furtherance of which Defendants fixed, maintained, and made artificial FX spot currency rates and FX benchmark

rates, as well as FX Futures prices. Thus, both Defendants' conduct (agreed coordinated action to fix prices, thus diminishing the independent competitive action that competition assumes and demands) and the intended and actual effect of that conduct (to raise FX spot market and FX futures market prices above competitive levels and/or to suppress such prices to below competitive levels) was anticompetitive. As such, Defendants' conspiracy is a *per se* violation of the federal antitrust laws and an unreasonable and unlawful restraint of trade.

355. Each of the Defendants acted, as alleged herein, intentionally and with full knowledge of the objective of their agreed and coordinated conduct to manipulate, peg, fix, inflate and/or suppress FX spot currency prices for their collective advantage. Additionally, each of the Defendants acted, as alleged herein, with knowledge to a substantial certainty, as active and sophisticated FX market traders, that their manipulation of FX spot market prices would have a direct and corresponding manipulative effect on FX Futures prices, and so each Defendant intended to manipulate, peg, fix, inflate and/or suppress not only FX spot currency prices, but also FX futures prices. Further, each Defendant knew to a substantial certainty that such anticompetitive manipulation and fixing of prices in the FX futures market would cause harm and injury to FX futures market participants such as Plaintiffs and members of the Class. Such consequences were thus fully and certainly foreseeable, and Defendants knowingly, intentionally, and/or recklessly caused such harm and injury.

356. Defendants' violations substantially affected interstate trade and commerce and caused antitrust injury to Plaintiffs and all Class members.

357. FX Futures are traded throughout the U.S. in interstate commerce and globally. During the Class Period, Plaintiffs and members of the Class transacted in and/or held FX

Futures at prices that were set and otherwise made artificial as a result of Defendants' unlawful acts.

358. During the Class Period, Defendants acted in interstate commerce within the U.S.

359. Defendants' contract, combination, and conspiracy unreasonably restrained trade and commerce, made artificial the prices of FX spot currency rates and/or benchmark FX rates, and caused misleading signals to be sent to market participants.

360. As a result of Defendants' unlawful conduct, Plaintiffs and members of the Class have suffered injury to their business or property. Plaintiffs and the Class are each entitled to treble damages for the Defendants' violations of the Sherman Act alleged herein, and a permanent injunction restraining Defendants from engaging in additional anticompetitive conduct.

361. Pursuant to Section 16 of the Clayton Act, 15 U.S.C. § 26, Plaintiffs and the Class seek the issuance of an injunction against Defendants, preventing and restraining the violations alleged herein.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for relief as follows:

(A) For an order certifying this lawsuit as a class action pursuant to Rules 23(a) and (b)(3) of the Federal Rules of Civil Procedure, and designating Plaintiffs as the Class representatives and their counsel as Class counsel;

(B) For a judgment awarding Plaintiffs and the Class actual damages for Defendants' violations of the CEA, together with prejudgment interest at the maximum rate allowable by law;

(C) For a judgment awarding Plaintiffs and the Class actual damages for Defendants' violations of the Sherman Act, together with prejudgment interest at the maximum rate allowable by law;

(D) For a constructive trust and disgorgement of ill-gotten profits flowing from Defendants' manipulative conduct;

(E) For an award to Plaintiffs and the Class of their costs of suit, including reasonable attorneys' and experts' fees and expenses; and

(F) For such other and further relief as the Court may deem just and proper.

JURY DEMAND

Plaintiffs respectfully demand a trial by jury.

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New York, New York

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